

PROCEEDINGS
OF THE
GENERAL MEETINGS FOR SCIENTIFIC BUSINESS
OF THE
ZOOLOGICAL SOCIETY OF LONDON.

January 17, 1893.

Sir W. H. FLOWER, K.C.B., F.R.S., President, in the Chair.

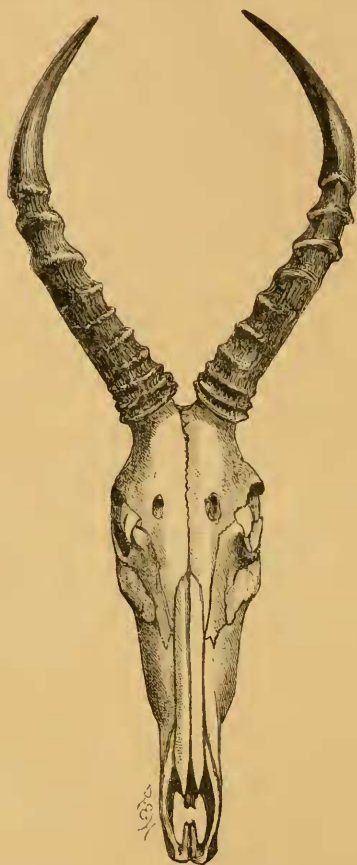
The Secretary read the following report on the additions to the Society's Menagerie during the month of December 1892:—

The total number of registered additions to the Society's Menagerie during the month of December was 43, of which 18 were by presentation, 23 by purchase, and 2 on deposit. The total number of departures during the same period, by death and removals, was 140.

Mr. F. C. Selous, C.M.Z.S., exhibited the skull of an Antelope believed to be a hybrid between the Sassaby (*Bubalis lunata*) and the Hartebeest (*B. caama*), which he had transmitted to the British Museum in 1890, and read the following letter which he had addressed to Dr. Günther on the subject, dated Tati River, Matabeleland, March 23rd, 1890:—

"I am sending you the skull of a very curious animal which would puzzle you immensely if I did not tell you what it was. It is the skull of a male cross-bred animal, between a Tsessebe Antelope (*Bubalis lunata*) and a Hartebeest (*B. caama*), the father probably being one of the former Antelopes and the mother one of the latter. This animal was shot a few miles from here, between the Tati and Shashi rivers, by my old friend Cornelius van Rooyen, the well-known Boer hunter. You will see that the skull of this animal closely resembles that of a Hartebeest, whilst the horns are neither like those of a Hartebeest nor those of a Tsessebe, but partake of the characters of both, standing nearly straight up from the skull

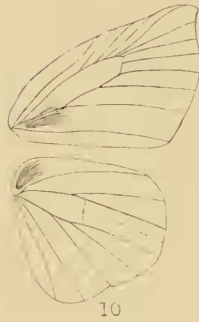
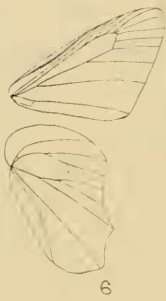
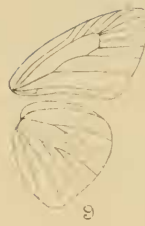
as in the Hartebeest, but yet being slightly lunate in form and ringed as in the Tsessebe. As regards the animal itself, van Rooyen tells me that the colour of its skin on the body, head, and legs was precisely the same as in an ordinary Tsessebe. but that it had the



Head of supposed hybrid Antelope between *Bubalis lunata* and *B. caama*.

comparatively large bushy tail of a Hartebeest. When it ran, it ran with its tail held out as Hartebeests do, and with the light springy gallop of those animals. There can, I think, be no doubt in the mind of any rational being that this curious animal is a cross between the Hartebeest and Tsessebe Antelopes. . . ."

"P.S.—You will notice that the prominent rings on the horns I am sending you agree with those which are present just at the backward turn of the horns of a Hartebeest."



H.Knight del et lith.

West Newman imp



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3



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4



5



6



7



8



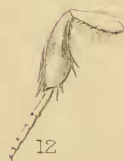
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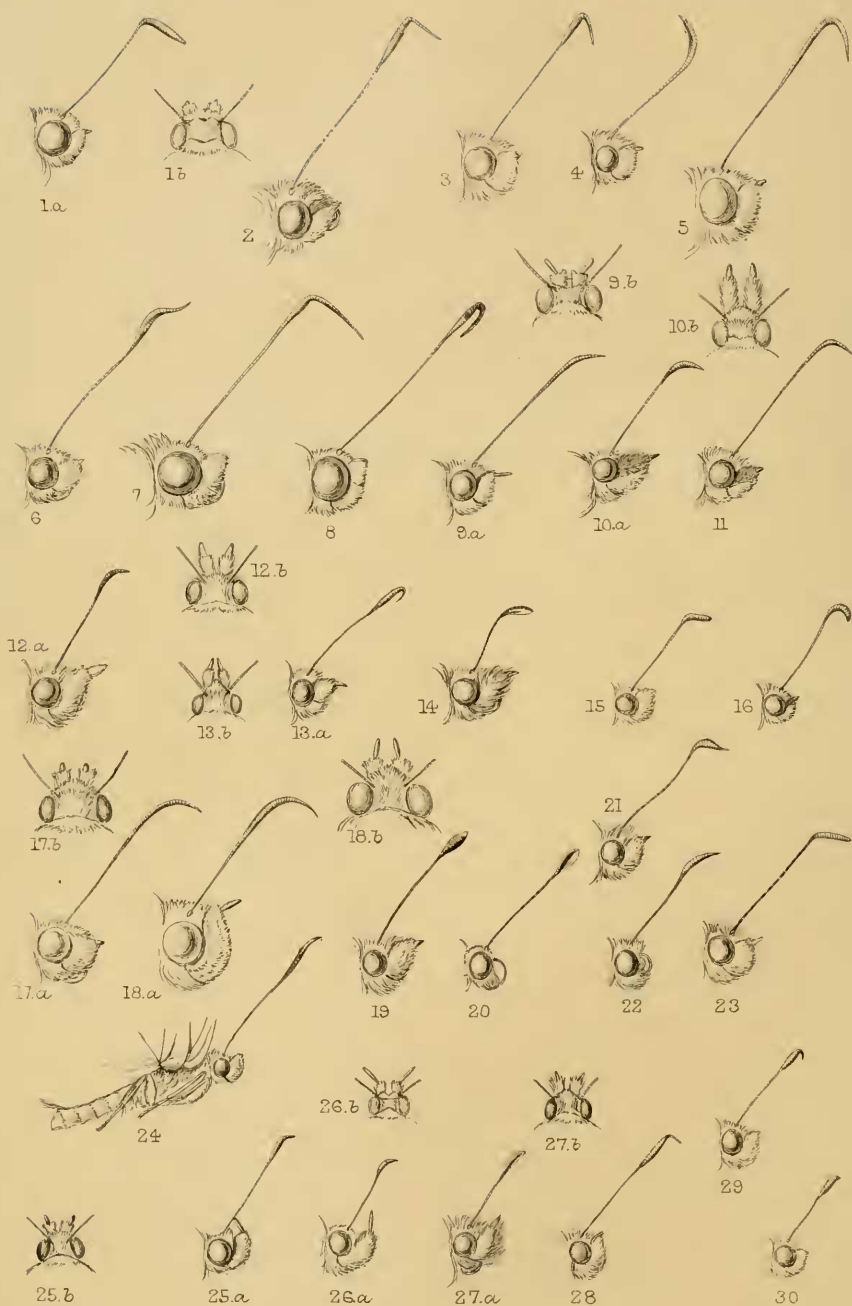


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H.Knight del. et lith.

West, Newman imp

Structure of the Hesperidæ.



H Knight del. et lith.

West Newman imp.

Structure of the Hesperidae

Mr. Oldfield Thomas exhibited three adult specimens, a male and two females, of the Borncan Monkey recently described by him under the name of *Simnopithecus crueiger*¹. These specimens showed that this Monkey was after all fully as large as *S. chrysomelas* and *S. hosei*, the adult male having a body 520 mm. and a tail 700 mm. in length; so that the typical skin must have been decidedly immature. In the male specimen the coloration was almost exactly similar to that of the type, but in the two females the broad black dorsal line was interrupted just below the level of the shoulders for a distance of two or three inches, the hairs being here red as on the flanks, but still intermixed with black. In all three also there was a blackish patch on the postero-internal side of the lower leg, but this patch varied in its intensity, and was not visible in the type. The crest in these specimens was much more developed than in the younger example, the hairs on the occiput attaining a length of nearly three inches, and being mixed black and red, owing to the red crown hairs mingling with the black ones of the anterior end of the dorsal black line.

These specimens had been taken on the Batang Hupar River, Western Sarawak, in August 1892, by one of Mr. Hose's collectors; and Mr. D. J. S. Bailly, a resident in the neighbourhood, had informed Mr. Hose that he had often seen black and red Monkeys, presumably of this form, in the forests of the district.

In spite of the confirmation given by these facts, Mr. Hose himself was inclined to think that *S. crueiger* might be only a red form or "erythrism" of *S. chrysomelas*, the common black and white Monkey of Sarawak, in the company of which he believed he had seen the specimen first described by Mr. Thomas. Mr. Hose pledged himself specially to investigate this most interesting question on his return to Borneo.

The following papers were read:—

1. A proposed Classification of the *Hesperiidæ*, with a Revision of the Genera. By Lieut. E. Y. WATSON, Madras Staff Corps, F.Z.S., F.E.S.

[Received October 27, 1892.]

(Plates I.—III.)

The arrangement here proposed is based entirely upon the collection of the British Museum; therefore only the species represented in the National Collection are referred to their respective genera, those species of which the types are in the collection being marked with an asterisk.

As the time at my disposal has been strictly limited, only such new genera have been described as differ very markedly from those

¹ Ann. Mag. N. II. (6) x. p. 475 (1892).

already established ; so that it will be found that there are many species noted below for which new genera have not been erected, but which have been placed in that genus to which they seem most closely allied. In addition to the collection of the British Museum, free access has been afforded me to the valuable collection of Messrs. Godman and Salvin, to whom my best thanks are due for their courtesy and kind assistance.

The system of numbering the veins has been adopted in the descriptions for brevity and clearness, and, as this system is not in universal use, the veins in the first figure of neuriation have been numbered to exemplify the method.

Before 1874 no serious attempt had been made to arrange the genera of the Hesperiidæ in natural groups, but since that time several arrangements, though in most cases only relating to a limited fauna, have been proposed.

The only suggested arrangement which seems to be perfectly natural is that proposed by Scudder in the Bulletin of the Buffalo Society of Natural Science¹, and afterwards worked out more completely in his 'Butterflies of New England.' Though it is only for the Hesperiidæ of New England that this arrangement is fully worked out, yet, on examination, it has been found, with certain modifications, applicable to the Hesperiid genera of the world, and has accordingly been adopted in this paper. In this arrangement Scudder divides the genera of New England Hesperiidæ into two groups, which he names respectively *Hesperidi* and *Pamphilidi*. These two divisions are based to a very large extent on the secondary sexual characters of the male imago, the egg, larva, and pupa supplying subsidiary characters ; these latter, however, are, as pointed out, of a slight and ill-defined character, and would be inapplicable generally, since, in the great majority of the genera, little or nothing is known of the earlier stages. The male characters are, however, sufficient in themselves to enable the majority of the genera to be readily assigned to the respective groups, and where no secondary male characters exist the neuriation or habits supply the necessary indication.

Mabille has further amplified this arrangement of Scudder's in a paper² on the Hesperiidæ in the Brussels Museum, wherein he further subdivides the main divisions and assigns additional genera to their respective groups. These further subdivisions have unfortunately been only very partially characterized, owing, as M. Mabille himself states, to his investigations not being completed.

In the allocation of many genera I have found it necessary to entirely differ from M. Mabille's conclusions ; for instance, nearly all those genera which Mabille includes under his subdivisions "*Ismenini*" and "*Tagiadini*," and assigns to the *Astyci* = *Pamphilidi* (Scudder), should, in my opinion, be transferred to the *Hesperidi* (Scudder), with which their habits and neuriation better agree, and Mabille's "tribe" *Pyrrhopygini* be erected into a group of equal

¹ Bull. Buff. Soc. Nat. Sc. vol. i. pp. 195-196 (1874).

² Ann. Soc. Ent. Belge, vol. xxi. p. 12 *et seq.* (1878).

importance to Scudder's *Hesperidi* and *Pamphilidi*, this latter being an alteration already suggested by Scudder himself.

Passing by the arrangement of Plötz, which, being based largely on the pattern of the wings, has been found quite unworkable, and that of Distant, which was a tentative one only intended to be applied to the fauna then under consideration, we come to a valuable paper¹ by Speyer on the "Genera of the Hesperiidæ of the European Fauna." In this paper he makes a suggestion which has been found of the very greatest importance in the classification of the genera; this suggestion was to the effect that the position of vein 5 of the fore wing in relation with veins 6 and 4 would probably prove a character of value. This surmise has proved to be correct, and the position of vein 5 has been found of great use in the arrangement of the Hesperiidæ, as it has already proved to be for the division of the Heterocera into two large groups of families.

In the following arrangement it has been attempted to make mention of every generic name published prior to 1892, and to point out its type species, though, where this species has not been accessible, it has not been possible in most cases to assign the genus to its correct position. This is in great part owing to the very superficial manner in which some, even recent, authors characterize their genera, in many cases doing no more than specifying the species they propose as their type, so that when one is not in possession of that particular species the genus is quite unrecognizable.

Whenever no particular species has been designated by the author of a genus as his type of that genus, it has been found most satisfactory to follow Scudder's 'Historical Sketch of the Genera of Butterflies,' published in 1875, as in that work he has investigated the history of the genera from the earliest authors, and has fixed the types in accordance with the strictest rules of priority, and therefore in the opinion of the writer his decisions should be accepted by all subsequent authors, who will thus have a sound basis to start from, and a uniform system would result instead of the chaos which is caused by each author arbitrarily fixing the type of the genera of earlier authors on a system of his own.

The decisions of Mr. Scudder have therefore been accepted for all genera included in the above-quoted work; while for those genera which have been described subsequently, when no type has been specified, that species has been taken which best agrees with the diagnosis of the genus. In the great majority of genera it has been found practicable to clear the wings of a specimen of the typical species, whereby its diagnosis has been considerably facilitated.

In all, 234 generic names have been dealt with, of which 49 are sunk as synonyms, while 45 new genera have been described, and at least as many more await description in British collections alone.

As in the British Museum collection the two genera *Megathymus* and *Egiale* are arranged in the Heterocera, they are not included below, though some authors consider they should be treated

¹ Stett. ent. Zeit. vol. xl, p. 477 *et seq.* (1879).

as Hesperiidæ; the Australian genus *Euschemon*, which is furnished with a frenulum, one of the most distinctive characters of the Heterocera, has also been omitted; should subsequent authors consider these three genera are more naturally placed in the Hesperiidæ, it will be necessary to establish two additional sub-families for their reception.

With regard to the vexed question of the generic importance of male secondary sexual characters, the conclusion which has been forced upon me is that, in any particular genus in which male secondary characters are found, the particular male character (be it costal fold, discal stigma, or tuft of hairs) may be either present or absent in different species of that same genus, but is never replaced by a character of different structure. Of the inconstancy of the male character in the same genus the following are examples:—*Eudamus*, *Thorybes*, *Hesperia*, *Urbanus*, *Ismene*, *Hasora*, *Kerana*, *Padraona*, *Taractrocera*, *Chapra*, *Baoris*, *Halpe*, and many others might be brought forward; but on the other hand it is difficult to quote a single genus in which the male character is replaced by another of similar character, and in a few cases where this is apparently the case in the following paper, it is owing to new genera not having been erected for the aberrant forms though manifestly distinct, time not allowing of the critical examination necessary.

On every other occasion when the male secondary character differs in structure, an accompanying difference will be found in the neurulation, antennæ, or other point of structure.

The above being the case, the costal fold, discal stigma, or other structural peculiarity of the male insect, though frequently not a generic character, is yet of the greatest importance in the formation of groups or subfamilies, and, as has already been pointed out by Scudder, all those species which are provided with a costal fold belong to the *Hesperiniæ*, and all those provided with a discal stigma to the *Pamphilinæ*.

Though the above conclusion is not in accordance with the theory of many authors, yet it will be found that no author can be quoted who does not admit it in practice; for instance, Scudder places *bathyllus* and *pylades* in the same genus *Thorybes*, though the former is without a costal fold and the latter is provided with one; Mabille, in his paper above quoted, includes in the genera *Thymele*, *Eudamus*, *Æthilla*, *Ismene*, *Pamphila*, and others species both provided with and devoid of male secondary characters; Moore, who is one of the strongest advocates for the generic importance of male characters, yet, under the same generic name *Thanaos*, describes *indistincta* and *stigmata*, the former of which lacks the discal stigma of the latter, includes in his own genus *Halpe* the species *radians*, though without the discal band characteristic of the genus, describes *atkinsoni*, *subtestaceus*, *nilgiriana*, and *vinthiana*, all as belonging to the genus *Isoteinon*, though the two former possess a tuft of hairs on the fore wing which is wanting in the latter, and acts similarly on several other occasions; while Distant and Trimen in their respective works allow to male characters no generic importance

whatever. Mr. de Nicéville also informs me that though he would attach more importance to the male-marks in Hesperiidæ and Lycænidæ than in other families, yet he considers that each case must be judged on its merits.

While referring to this subject, it seems worth calling attention to the very few Old World genera which are provided with a costal fold on the fore wing, those provided with a discal streak or other character largely predominating, while in the New World the numbers of each group seem fairly equal.

The characters which have been found of the greatest value in dividing the family into groups or subfamilies are (the *Pyrrhopyginæ* being first excluded on their abnormal antennæ) firstly the position of vein 5 of the fore wing, taken in conjunction with the length of the cell, this vein in the *Hesperinæ* being invariably nearer to 6 than to 4 when the cell of the fore wing is less than two-thirds the length of costa, and only nearer to 4 when the cell is more than two-thirds the length of costa; while in the *Pamphilinæ* vein 5 of the fore wing is never nearer to 6 than to 4 except in a few aberrant Australian genera, and usually is very much nearer to 4, in a few cases only being practically equidistant between the two veins, while on the other hand the cell of the fore wing never exceeds two-thirds of the length of the costa, except in one or two Asiatic genera of the *Ismene* group, which are readily distinguished from all *Hesperinæ* by their peculiar palpi and antennæ.

The presence or absence of vein 5 of the hind wing has been found of no importance as a character for groups of genera, as it occurs in all stages of development in closely allied genera; it has, therefore, only been treated as present when it has been fully developed into a tubular vein, and in all other cases has been treated as absent, though it is usually just traceable as a fold or weak vein, being only absolutely invisible in some genera of *Pamphilinæ*, chiefly those in which vein 5 of the fore wing is very close to the bottom of the cell. It is noteworthy that there is no genus of *Pamphilinæ* or the *Hesperinæ* occurring in the New World in which vein 5 of the hind wing is fully developed into a tubular vein, the only New World genera in which this vein is developed being the *Pyrrhopyginæ* genera *Amenis* and *Ardaris*, the former of which would appear to be in a transitional state, the development of the vein varying individually in the same species.

The presence or absence of the tibial epiphysis on the fore legs has only been found of secondary importance, varying in some cases in different species of the same genus, and apparently being present or entirely wanting in different individuals of *Abantis tettensis*, Hopff.

On the hind tibiæ both terminal and medial pairs of spurs are almost invariably present, and the absence of the middle pair is usually of generic importance, though in the genera *Cyclopides*, *Heteropterus*, and *Pythonides* the absence of this pair of spurs is only of specific value.

Another character of the greatest importance is the position

assumed by the species when in a state of complete repose; and it will be found that all those species which are known to rest with their wings expanded fall naturally into the *Pyrrhopygina* or *Hesperina*, and in no single instance into the *Pamphilina*, and only in very few instances are species of these two subfamilies known to rest with their wings raised over their backs.

The only other character which has been found of importance is the description of secondary male characters found on the upper side of the fore wing, and this is limited in its value by there being in many genera no secondary male characters on the fore wing. However, the costal fold is never found except among the *Hesperina*, and the discal stigma of whatever form never except among the *Pamphilina*; other male characters, such as tufts and patches of modified scales on the underside of the fore wing, either side of the hind wing, or on the legs, appear to be shared in common by both *Hesperina* and *Pamphilina*.

There is little doubt that when more is known of the earlier stages of the family other characters will be found, but at present it is quite impracticable to generalize from the few facts known. A little has been done in this direction by Scudder in the 'Butterflies of New England,' but only very few genera are referred to, and the characteristics there given as peculiar to the *Hesperina* and *Pamphilina* do not seem to hold when applied to the few Old World species of which it has been found practicable to examine the earlier stages; no mention of these stages has therefore been made in the present paper, pending fuller investigations.

The terms used in the descriptions are as follows:—the antennæ are called "hooked" when the terminal portion of the club is bent to less than a right angle with the remaining portion of the club, and "sickle-shaped" when the whole of the club is evenly curved and not abruptly angled; when the club is abruptly angled but not "hooked" it is spoken of as simply "bent." The palpi are termed "porrect" when the third joint is extended horizontally in front of the face in continuation of the axis of the body, "erect" when the third joint is extended perpendicularly in front of the face at right angles to the axis of the body—in this case the third joint frequently curves back over the vertex—and "suberect" when the third joint of the palpi lies at less than a right angle with the axis of the body. These terms are only used when the third joint is more or less conspicuous and its direction obvious; in the majority of genera the third joint is very short and inconspicuous, and in describing these no mention is made of its direction, which is in many cases difficult to definitely point out, and would render the diagnosis liable to misconception. In comparing the length of the cell with the length of the costal margin, the latter is measured in a straight line from the base of the wing to the apex, and the former from the base of the wing to the upper angle of the cell. The length of the inner margin is measured in a straight line from the base of the wing to the outer angle, and the outer margin in a straight line from the outer angle to the apex of the wing. The veins are treated as

arising at where they bifurcate from the main trunks: *i. e.* veins 1 and 12 of the fore wing, and 1 *a* and 1 *b* of the hind wing, are treated as arising from the base of the wing; veins 2 and 3 of both wings as arising from their bifurcation with the median; veins 7, 8, 9, 10, 11 of the fore wing and 7 and 8 of the hind wing as arising from their bifurcation with the subcostal; veins 6 and 4 of both wings as arising at the points where they are met by the middle and lower discocellulars respectively; and, lastly, vein 5 of both wings as arising at the junction of the middle and lower discocellulars. The median from the base of the wing to the lower angle of the cell is termed the "lower margin of the cell," and the subcostal from the base of the wing to the upper angle of the cell the "upper margin of the cell."

In the generic keys to the several sections the more superficial and readily recognizable characters have been constantly employed; the male secondary sexual characters, though used frequently, being taken only where the same character is found throughout the whole genus.

It has been found impracticable to arrange the genera in their natural order in the keys, so the genera of each section are numbered in the order which seems most natural, and the descriptions are arranged to accord with these numbers.

The following three subfamilies have been adopted in this arrangement, detailed descriptions of which will be found in the text, while they may be briefly compared as follows:—

PYRRHOPYGINÆ.—This is a well-marked group of closely allied genera confined entirely to the New World, which can be readily recognized by the large blunt club to the antennæ, which is a constant character. The cell of the fore wing is also invariably very long, being more than two-thirds the length of the costa. Vein 5 of the fore wing is usually nearer to 4 than to 6. When at rest they extend all their wings horizontally.

HESPERIINÆ.—This group includes all species with a costal fold in the male, all species in which vein 5 of the fore wing is nearer to 6 than to 4, and all species which rest with their wings extended horizontally. Some few species rest with their wings raised above the back, but these are very few and can invariably be recognized by the costal fold or some other character; also, in a considerable number of genera in which the cell is more than two-thirds the length of the costa, vein 5 is usually slightly nearer to 4 than to 6; this is occasioned by the upper angle of the cell being produced, and the middle discocellular consequently elongated. These genera, however, are readily recognized by the length of the cell, as in the *Pamphilinæ*, where it is only in a very few well-marked genera that the cell exceeds two-thirds of the costa.

The antennæ, almost without exception, end in a fine point, and in the few genera in which this is not the case the cell is invariably short.

PAMPILINÆ.—This group includes all species with a discal band on the fore wing of the male, and all species in which vein 5 of the

fore wing is nearer to 4 than to 6, with the exception of those noted above. When in a complete state of repose all the species of this group rest with their wings raised above their backs; but when only sunning themselves, in many species the fore wings are elevated and the hind wings depressed. The cell of the fore wing is almost invariably less than two-thirds the length of the costa, and the antennæ almost invariably end in a fine point.

Subfamily I. PYRRHOPYGINÆ.

Antennæ: club very thick, ending in a blunt point, usually more or less bent into a hook. Palpi: second joint densely scaled, closely pressed against the face; third joint naked, minute. Cell of fore wing always more than two-thirds the length of costa. No costal fold or other secondary sexual characters on fore wing of male. Vein 5 of fore wing nearer to 4 than to 6. Vein 5 of hind wing usually wanting. Hind tibiæ usually with two pairs of spurs.

The thick blunt club to the antennæ will at once distinguish this subfamily: a few of the lower genera of *Hesperiinæ* and some Australian *Pamphilinæ* have a somewhat similar club; but in them the cell of fore wing is invariably less than two-thirds the length of costa.

This subfamily exactly coincides with the *Pyrrhopygini* of Mabille, which he places as a section of his *Hesperiidi*; however, its characteristics are so well marked that it has here been treated as a subfamily of equal value with the *Hesperiinæ* and *Pamphilinæ*. Little or nothing is known of the early stages of this subfamily, but the perfect insect seems in many ways to have affinities to both *Hesperiinæ* and *Pamphilinæ*, and its correct position is a matter of some doubt. According to Westwood and Hewitson, the perfect insect rests with its wings extended horizontally.

The whole group would also appear to be protected, as a large number of the species are mimicked very markedly by *Erycides* and its allies and also by some species of *Pamphilinæ*.

This subfamily is confined entirely to South and Central America.

Synopsis of Genera of PYRRHOPYGINÆ.

A. Middle and lower discocellulars of fore wing very oblique.

a. Club of antennæ much thickened.

a¹. Vein 5 of hind wing wanting.

a². Vein 3 of fore wing less than twice as far from 2 as from 4.

a³. Vein 3 of hind wing from before end of cell.

PYRRHOPYGE, Hb. Type, *hyperici*, Hb. (1)

b¹. Vein 3 of hind wing from beyond end of cell.

MYSORIA, g. n. Type, *acastus*, Cramer. (2)

b². Vein 3 of fore wing more than twice as far from 2 as from 4.

a³. Vein 3 of hind wing from before end of cell.

YANGUNA, g. n. Type, *spatiosa*, Hew. (4)

b³. Vein 3 of hind wing from end of cell.

a⁴. Cell of hind wing short, not reaching half across wing.

MIMONIADES, Hb. Type, *iphius*, Latr. (9)

- b*⁴. Cell of hind wing long, reaching more than half across wing.
 AMENIS †, g. n. Type, *pionia*, Hew. (3)
- c*³. Vein 3 of hind wing from beyond end of cell.
 SARBIA, g. n. Type, *xanthippe*, Latr. (6)
- c*². Vein 3 of fore wing more than three times as far from 2 as from 4.
*a*³. Vein 3 of hind wing from end of cell.
 MAHOTIS, g. n. Type, *nurseia*, Swains. (5)
- b*³. Vein 3 of hind wing from before end of cell.
 JEMADIA, g. n. Type, *patrobas*, Hew. (8)
- b*¹. Vein 5 of hind wing well developed.
 ARDARIS, g. n. Type, *eximia*, Hew. (7)
- b*. Club of antennæ comparatively slender.
*a*¹. Veins 7 and 8 of fore wing anastomosing shortly.
 MICROCERIS, g. n. Type, *varicolor*, Mén. (11)
- b*¹. Veins 7 and 8 of fore wing free.
 MYSCELUS, Hb. Type, *nobilis*, Cram. (12)
- B. Middle and lower discocellulars of fore wing almost erect.
 OXYNETRA, Feld. Type, *semihyalina*, Feld. (10)

1. Genus PYRRHOPYGE. (Plates I. fig. 2; III. figs. 1 *a*, *b*.)

Pyrrophyge, Hübner, Verz. bek. Schmett. p. 103 (1816).

Type, *hyperici*, Hübner.

Tanyris, Swainson, Zool. Ill. i. t. 33 (1820-21).

Type, *zeleucus*, Fabr.

Pachyrhopala, Wallengr. K. Vet.-Akad. Förh. xv. 81 (1858).

Type, *phidias*, Linn.

Club of antennæ ovoid, very much thickened, bluntly pointed, usually bent into a hook. Fore wing: no costal fold in male but costa much thickened; cell rather more than two-thirds length of costa; vein 10 nearer to 11 than to 9; veins 6 and 7 from upper angle of cell; vein 8 from just before it; upper discocellular minute, middle one about half as long again as lower; middle and lower discocellulars inwardly oblique, the middle slightly more oblique than the lower and rather better developed; vein 5 nearer to 4 than to 6; vein 3 about half as far again from 2 as from end of cell. Hind wing: cell not reaching to the middle of the wing; vein 7 well before upper end of cell, about three times as far from base as from end of cell, rather more remote from base than 2; discocellulars almost erect, slightly concave outwardly; vein 5 wanting; vein 3 from just before end of cell; vein 2 almost equidistant from base of wing and from end of cell. Hind wing: outer margin even or slightly crenulated, produced more or less into an anal lobe, which in some species is well marked though small. Hind tibiae with two pairs of spurs, the upper pair minute.

<i>hyperici</i> , Hübner.	1.	<i>*gazera</i> , Hew.	6.
<i>*arcthyrea</i> , Hew. ...	2.	<i>papius</i> , Hopfl.	6 <i>a</i> .
<i>*aziza</i> , Hew.	3.	<i>*charybdis</i> , Westw. ...	7.
<i>*gorata</i> , Hew.	4.	<i>scylla</i> , Mén.	8.
<i>sergius</i> , Hopfl.	5.	<i>meneceates</i> , Mab. ...	9.

† In *Amenis* vein 5 of the hind wing is sometimes well developed, but the genus can be readily separated from *Ardaris* by the hind tibiae being provided with two pairs of spurs, the terminal pair only being present in *Ardaris*.

<i>zeleucus</i> , Fabr.	10.	<i>hygieia</i> , Hew.	20.
{ <i>phidias</i> , Linn.	11.	* <i>amra</i> , Hew.	21.
<i>menas</i> , Fabr.		<i>josepha</i> , Plötz	21 a.
* <i>latifascia</i> , Butl.	12.	<i>amyclas</i> , Cram.	22.
* <i>fluminis</i> , Butl.	13.	* <i>phylleia</i> , Hew.	23.
* <i>passora</i> , Hew.	14.	* <i>hadassa</i> , Hew.	24.
* <i>yortyna</i> , Hew.	15.	* <i>telassa</i> , Hew.	25.
{ <i>jonas</i> , Feld.	16.	* <i>martena</i> , Hew.	26.
<i>cydonia</i> , Druce.		<i>creona</i> , Druce	27.
* <i>zereda</i> , Hew.	17.	* <i>galgala</i> , Hew.	28.
<i>chalybea</i> , Sc.	18.	* <i>maculosa</i> , Hew.	29.
{ <i>æsculapius</i> , Staud. ...	19.	* <i>araxes</i> , Hew.	30.
<i>variegaticeps</i> , G. & S.		* <i>kelita</i> , Hew.	31.

And three unidentified species.

2. Genus MYSORIA, nov.

Type, *acastus*, Cramer.

Antennæ as in *Pyrrhopyge*. Fore wing much more elongate; costa more than half as long again as inner margin; cell almost three-fourths the length of costa. Vein 3 only slightly nearer to end of cell than to vein 2; the rest of the neuration much as in *Pyrrhopyge*. Hind wing: cell very short; vein 3 well beyond end of cell, as far beyond as 2 is before it; vein 7 well before end of cell, slightly longer than vein 2. Hind tibiæ with two pairs of spurs.

<i>acastus</i> , Cramer	1.
<i>venezuelæ</i> , Scudder	2.
{ <i>barcastus</i> , Sepp.	3.
* <i>verbena</i> , Butler.	
<i>thasus</i> , Cramer	4.

3. Genus AMENIS, nov.

Type, *pionia*, Hew.

Antennæ as in *Pyrrhopyge*. Fore wing: as in *Pyrrhopyge*, but vein 3 given out much nearer the end of the cell, more than twice as far from 2 as from 4. Hind wing: cell reaching rather beyond the middle of the wing; vein 3 from end of cell, not before it; vein 7 just before end of cell. Hind tibiæ with two pairs of spurs.

* <i>pionia</i> , Hew.	1.
<i>ponina</i> , H.-S.	2.

In this genus vein 5 of the hind wing is more or less developed, and seems to vary individually; in the single female that I have seen it was practically absent.

4. Genus YANGUNA, nov.

Type, *sputiosa*, Hewitson.

Antennæ as in *Pyrrhopyge*. Fore wing: vein 3 more than twice as far from 2 as from 4. Hind wing: cell not reaching middle of wing; vein 7 rather more than twice as far from base as from end of cell; vein 3 from before end of cell; vein 2 less than twice as

far from base as from end of cell. Hind tibiæ with two pairs of spurs.

{	* <i>spatiosa</i> , Hew.	1.	{	<i>rubricollis</i> , Sepp ...	3.
	* <i>cometes</i> , Cram. ...	2.		* <i>hadora</i> , Hew.	
	* <i>thelersa</i> , Hew.			* <i>arinas</i> , Cram.	4.
				* <i>pedaia</i> , Hew.	

5. Genus MAHOTIS, nov.

Type, *nurscia*, Swainson.

Antennæ as in *Pyrrhopyge*. Fore wing: veins 6, 7, and 8 from upper angle of cell; middle discocellular very oblique, lower discocellular slightly arched; vein 3 three times as far from 2 as from 4. Hind wing: cell reaching slightly beyond the middle of the wing; vein 7 well before end of cell; discocellulars distinct; vein 5 wanting; vein 3 from end of cell; vein 7 shorter than 2. Hind tibiæ with only the terminal pair of spurs.

<i>nurscia</i> , Swainson	1.
<i>erido</i> , Hew.	2.

6. Genus SARBIA, nov.

Type, *xanthippe*, Latreille.

Antennæ as in *Pyrrhopyge*; palpi also similar, but the third joint even less prominent than in that genus, being almost entirely concealed by the scales of the second joint. Fore wing: much as in *Pyrrhopyge*, but vein 3 more than twice as far from 2 as from 4. Hind wing: cell very short, reaching to considerably less than half across wing; vein 3 far beyond end of cell, only about half as long as vein 2; vein 2 almost equidistant from base of wing and end of cell; vein 7 well before end of cell, more than three times as far from base of wing as from vein 6. Hind tibiæ with two pairs of spurs.

<i>xanthippe</i> , Latr.	1.
<i>spixi</i> , Plötz	1 a.
<i>antias</i> , Feld.	2.
* <i>oneka</i> , Hew.	3.

And one unidentified species.

7. Genus ARDARIS, nov. (Plate I. fig. 1.)

Type, *eximia*, Hew.

Antennæ as in *Pyrrhopyge*. Fore wing: middle and lower discocellulars subequal, inwardly oblique and in the same straight line; vein 2 remote from base of wing, about equidistant from vein 3 and base of wing; vein 3 twice as far from 2 as from end of cell. Hind wing: vein 7 well before end of cell; discocellulars distinct; vein 5 from their middle; vein 3 from end of cell; vein 2 rather nearer to end of cell than to base of wing. Hind tibiæ with only the terminal pair of spurs.

* <i>eximia</i> , Hew.	1.
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8. Genus JEMADIA, nov.

Type, *hospita*, Butler.

Antennæ as in *Pyrrhopyge*. Fore wing: vein 3 more than three times as far from 2 as from end of cell, rest of neuration as in *Pyrrhopyge*. Hind wing: cell reaching beyond the middle of the wing; vein 7 about three times as far from base as from end of cell; vein 3 before end of cell; vein 2 twice as far from base as from vein 3. Hind wing produced into a distinct lobe at submedian. Hind tibiæ with two pairs of spurs.

* <i>hospita</i> , Butl.	1.	* <i>pascas</i> , Hew.	6.
{ <i>gnetus</i> , Fabr.	2.	{ <i>jamina</i> , Butl.	7.
<i>vulcanus</i> , Cramer.		* <i>zinna</i> , Hew.	
* <i>hewitsonii</i> , Mab.	3.	* <i>akira</i> , Hew.	8.
* <i>patrobas</i> , Hew.	4.	* <i>zonara</i> , Hew.	9.
* <i>azcta</i> , Hew.	5.		

9. Genus MIMONIADES.

Mimonides, Hübn. Zutr. ii. 27 (1823). Type, *iphinous*, Latreille.

Antennæ and palpi as in *Pyrrhopyge*. Fore wing: vein 2 from close to base of wings; vein 3 rather more than twice as far from 2 as from end of cell. Hind wing: outer margin slightly crenulate; vein 7 just before end of cell; discocellulars outwardly concave; vein 3 from end of cell; vein 2 nearer end of cell than base of wing. Hind tibiæ with two pairs of spurs.

{ <i>iphinous</i> , Latr.	1.	<i>minthe</i> , G. & S.	5.
{ <i>ocyalus</i> , Hübn.		* <i>scla</i> , Hew.	6.
{ <i>versicolor</i> , Latr.	2.	* <i>periphema</i> , Hew.	7.
{ <i>mulcifer</i> , Hübn.		* <i>pietia</i> , Hew.	8.
<i>eupheme</i> , G. & S.	3.	* <i>machaon</i> , Hew.	9.
* <i>pityusa</i> , Hew.	4.		

The last two species are probably not congeneric with *iphinous* nor even with each other, but seem less out of place here than in any other described genus.

10. Genus OXYNETRA.

Oxynetra, Felder, Wien. ent. Mon. vi. p. 179 (1862).

Type, *semihyalina*, Felder.

? *Dis*, Mabille, Bull. Soc. Ent. Fr. (6) vol. ix. p. clxxxiv (1889).

Type, *annulatus*, Mabille.

Club of antennæ more pointed than in *Pyrrhopyge*. Fore wing: middle and lower discocellulars almost erect, the middle one the longer; vein 5 slightly nearer 4 than to 6; vein 2 twice as far from 3 as from base of wing; vein 3 only slightly further from 2 than from end of cell. Hind wing: cell reaching to two-thirds length of wing; vein 7 well before end of cell, nearer to margin than to base of wing; vein 5 wanting; vein 3 from beyond end of cell; vein 2 from well before end of cell, considerably nearer to margin than to base of wing.

Male with a tuft of hairs on upperside of hind wing at base of submedian nervure.

<i>semihyalina</i> , Felder	1.
<i>felderi</i> , Hopff.	2.

Messrs. Godman and Salvin consider the *annulatus* of Mabille to be in all probability the female of a species of *Oxyntera*.

11. Genus MICROCERIS, nov. (Plate I. fig. 3.)

Type, *variicolor*, Mén.

Antennæ: club rather more pointed than in *Pyrrhopyge*. Palpi as in *Pyrrhopyge*. Middle and lower discocellulars subequal, inwardly oblique; veins 7 and 8 stalked, *i. e.* anastomosing, for a short portion of their length; vein 3 about twice as far from 2 as from 4. Hind wing: outer margin crenulated; vein 7 just before end of cell; vein 5 wanting; vein 3 from end of cell; vein 2 considerably nearer to end of cell than to base of wing. Fore tibiæ very short. Hind tibiæ with two pairs of spurs.

<i>variicolor</i> , Mén.	1.
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12. Genus MYSCELUS.

Myscelus, Hübner, Verz. bek. Schmett. p. 110 (1816).

Type, *nobilis*, Cramer.

Antennæ hooked, ending in a blunt point; club comparatively slender, only about twice as thick as shaft. Outer margin slightly longer than inner margin. Cell reaching to more than two-thirds the length of costa. Discocellulars very oblique in the same straight line. Vein 5 nearer to 4 than to 6. Vein 3 from just before end of cell, more than twice as far from 2 as from end of cell. Hind wing very crenulate, rather squared at anal angle. Hind tibiæ with two pairs of spurs, both tibiæ and femora being densely fringed on their inner edge.

<i>nobilis</i> , Cramer.....	1.	<i>epimachia</i> , H.-S.	5.
* <i>amystis</i> , Hew.	2.	<i>santhilarius</i> , Latr.	6.
* <i>æthrus</i> , Hew.....	3.	<i>pardalina</i> , Feld.	7.
* <i>phoronis</i> , Hew.....	4.	<i>assaricus</i> , Cram.	8.

Subfamily II. HESPERINÆ.

Section A.

Antennæ: club usually bent into a hook, but sometimes sickle-shaped, always terminating in a fine point. Third joint of palpi either minute, or else porrected horizontally in front of the face, as in section C of the *Pamphilinæ*, never curving over the vertex. Cell of fore wing always more than two thirds the length of costa. Discocellulars generally very oblique. Vein 5 slightly nearer either to 4 or to 6, never conspicuously close to either. Hind wing frequently with a tail or tooth at submedian. Vein 5 never fully developed except in a few Old-World genera.

The length of the cell of the fore wing will serve to separate this section.

Little is known of the habits of this section, and, of those of which there is any record, some seem to rest with their wings over their backs, and some with them extended flat.

This section is confined almost entirely to the New World; only seven of the genera occur in the Old World, and these are only represented by one or two species each.

The male is usually provided with a costal fold on the fore wing and never with a discal stigma, occasionally with a tuft on one of the wings, and very frequently with a tuft of long hairs attached to the hind tibiæ, which are usually, but not invariably, furnished with two pairs of spurs. The epiphysis on the fore tibiæ is invariably present.

Section B.

Antennæ seldom hooked, occasionally bluntly pointed. Palpi, third joint either minute or porrected in front of the face, in the latter case stout, and not slender as in the *Entheus* group in Section A; palpi never curving over the vertex.

Fore wing: cell less than two-thirds the length of costa; vein 5 invariably nearer to 6 than to 4. Hind wing frequently lobate, but never with a distinct tail or tooth at the submedian; vein 5 never fully developed.

This section can be readily separated by the position of vein 5 of the fore wing together with the short cell.

All the species of this group of which there is any record (with the exception of a few species of *Hesperia*) rest with their wings extended flat when in a state of complete repose, frequently settling on the underside of a leaf.

This section occurs throughout both the New and the Old Worlds, some of the genera having a very wide range. Most of the New-World forms and a few of the Old-World ones are provided in the male with a costal fold on the fore wing, and never with a discal stigma. A very large number of the genera are also provided in the male with a tuft of long hairs attached to the hind tibiæ or fore coxæ. There are invariably two pairs of spurs on the hind tibiæ, and the epiphysis of the fore tibiæ is invariably present, with the doubtful exception of some individuals of *Abantis tettensis*.

Synopsis of Genera of HESPERIIDÆ.

Section A.

a. Hind tibiæ with two pairs of spurs (except in *Tarsoctenus* * and *Casyapa* *).

a¹. Third joint of palpi minute, bluntly conical.

a². Hind wing conspicuously tailed at vein 1 b.

a³. Male with a tuft of hairs on underside of fore wing.

POLYTHRIX, g. n. Type, *metallescens*, Mab. (1)

b³. No tuft of hairs on underside of fore wing in male.

ETDAMUS, Swains. Type, *protcus*, Linn. (2)

* The form of the antennæ alone will readily distinguish these two genera from the remaining genera in this section which have only one pair of spurs on the hind tibiæ.

- b*². Hind wing with no tail, but with a projecting tooth at vein 1 *b*.
*a*³. Antennæ sickle-shaped. *PLESTIA*, Mab. Type, *staudingeri*, Mab. (4)
*b*³. Antennæ more or less hooked (except in some species of *Heteropia*).
*a*⁴. Hind tibiæ with only terminal pair of spurs.
TARSOCTENUS, g. n. Type, *plutia*, Hew. (5)
*b*⁴. Hind tibiæ with both pairs of spurs.
*a*⁵. Lower discocellular of fore wing strongly arched.
PHOCIDES, Hübn. Type, *palemon*, Cram. (6)
*b*⁵. Lower discocellular of fore wing straight.
*a*⁶. Male with a tuft of hairs on underside of fore wing.
HYPOCRYPTOTHRIX, g. n. Type, *tentas*, Hew. (7)
*b*⁶. No tuft of hairs on underside of fore wing in male.
*a*⁷. No tuft of hairs on upperside of hind wing in male.
*a*⁸. Apex of fore wing truncate, the outer margin angled at vein 5.
*a*⁹. Male with a costal fold on fore wing.
*a*¹⁰. Vein 3 of hind wing immediately before the end of cell.
SEATHILEPIA, Butl. Type, *clonius*, Cram. (9)
*b*¹⁰. Vein 3 of hind wing well before end of cell.
EGARGYREUS, Hübn. Type, *tityrus*, Fabr. (10)
*b*¹¹. No costal fold on fore wing of male.
PROTEIDES, Hübn. Type, *idas*, Cram. (11)
*b*⁷. The apex of fore wing not truncate, outer margin not angled at vein 5.
*a*⁹. Hind tarsi set below with two series of very conspicuous closely set spines.
CHRYSOPLECTRUM, g. n. Type, *otriades*, Hew. (12)
*b*⁹. No conspicuous rows of spines on hind tarsi.
*a*¹⁰. No costal fold on fore wing of male.
*a*¹¹. Vein 2 of fore wing almost equidistant from 3 and from the base of wing.
HETEROPHA, g. n. Type, *imitatrix*, Mab. (8)
*b*¹¹. Vein 2 of fore wing twice as far from 3 as from base of wing.
*a*¹². Antennæ: club abruptly robust, crook very slender, considerably shorter than rest of club.
ACOLASTUS, Sc. Type, *savignyi*, Latr. (13)
*b*¹². Antennæ: club very gradually thickened and gradually tapering, crook as long as or longer than the rest of the club.
TELEGONUS, Hübn. Type, *anaphus*, Cram. (14)
*b*¹⁰. Male with a costal fold on fore wing.
*a*¹¹. Vein 2 of hind wing far before end of cell.
*a*¹². Terminal portion of club of antennæ only slightly or not at all longer than rest of club.
*a*¹³. Outer margin of fore wing in male only slightly or not at all longer than inner margin.
*a*¹⁴. Third joint of palpi horizontal.
*a*¹⁵. Vein 3 of hind wing from before end of cell.
*a*¹⁶. Tooth on hind wing very conspicuous.
GONITHUS, Hübn. Type, *corlus*, Cram. (3)
*b*¹⁶. Tooth on hind wing inconspicuous.
THYMELE, Fabr. Type, *mercatus*, Fabr. (15)

- b^{15} . Vein 3 of hind wing from end of cell.
 TELEMIADÆS, Hübn. Type, *avitus*, Cram. (16)
 b^{14} . Third joint of palpi erect.
 DYSCORPUS, Burm. Type, *sebalus*, Cram. (17)
 b^{13} . Outer margin of fore wing in male very much longer than inner margin.
 NASCUS, g. n. Type, *phocus*, Cram. (18)
 b^{12} . Terminal portion of club of antennæ more than twice the length of remainder of club.
 BUNGALOTIS, g. n. Type, *midas*, Cram. (19)
 b^{11} . Vein 2 of hind wing close to end of cell.
 DREPHALYS, g. n. Type, *helicus*, Hew. (32)
 b^7 . Male with a tuft of hairs on upperside of hind wing.
 a^8 . Apex of fore wing acute.
 a^7 . Vein 3 of hind wing from before end of cell.
 TYPHEDANUS, Butl. Type, *zephyus*, Butl. (33)
 b^6 . Vein 3 of hind wing from end of cell.
 PORPHYROGENES, g. n. Type, *omphale*, Butl. (35)
 b^5 . Apex of fore wing truncate.
 CECYDATUS, g. n. Type, *chersis*, H.-S. (34)
 c^2 . No tail or projecting tooth on hind wing at vein 1 b .
 a^3 . Vein 5 of hind wing fully developed.
 a^4 . Male with a costal fold on fore wing.
 a^5 . Hind tibiæ with one pair of spurs.
 CARYAPA, Kirby. Type, *corvus*, Feld. (21)
 b^5 . Hind tibiæ with two pairs of spurs.
 PTEROXYS, g. n. Type, *phanæus*, Hew. (20)
 b^4 . No costal fold on fore wing of male.
 a^5 . Antennal club very robust.
 PHENICOPS, g. n. Type, *beata*, Hew. (22)
 b^5 . Antennal club comparatively slender.
 a^6 . Male: outer margin of fore wing longer than inner margin. CAPILLA, Moore. Type, *jayadera*, Moore. (23)
 b^6 . Male: inner margin of fore wing longer than outer margin.
 a^7 . Male with a tuft of hairs on hind tibiæ.
 CALLIANA, Moore. Type, *picridoides*, Moore. (24)
 b^7 . No tuft of hairs on hind tibiæ of the male.
 PISOLA, Moore. Type, *zennara*, Moore. (25)
 b^3 . Vein 5 of hind wing wanting (*i. e.* not developed into a tubular vein).
 a^4 . Antennal club more or less hooked.
 a^5 . No tuft of hairs on hind tibiæ of the male.
 a^6 . Vein 3 of hind wing from the end of cell.
 CECROPTERUS, H.-S. Type, *zarear*, Hübn. (26)
 b^6 . Vein 3 of hind wing from before end of cell.
 a^7 . Hind wing rounded.
 a^9 . Male with a tuft of radiating hairs on upperside of hind wing. COGLA, Butler. Type, *hossan*, Butl. (27)
 b^6 . No tuft of radiating hairs on upperside of hind wing in the male.
 a^9 . Middle and lower discocellulars of fore wing sub-erect. EPHYRIADÆS, Hübn. Type, *otrcus*, Cram. (28)
 b^9 . Middle and lower discocellulars of fore wing oblique.
 a^{10} . Hind wing produced in the subcostal area, distance from origin of vein 8 to extremity of vein 6 greater than the length of vein 1 b .
 TUORYBES, Sc. Type, *bathyllus*, Sm.-Abb. (29)

- b*¹⁰. Hind wing produced in the submedian area.
Vein 1 *b* longer than the distance from the
origin of vein 8 to the extremity of vein 6.
- a*¹¹. Male with a costal fold on fore wing.
ACHALARUS, Sc. Type, *lycidas*, Sw.-Abb. (30)
- b*¹¹. No costal fold on fore wing of male.
RHABDOIDES, Sc. Type, *cellus*, Boisd. (31)
- b*⁷. Hind wing elongate.
MURGARIA, g. n. Type, *albiciliatus*, Mab. (39)
- b*⁵. Male with a tuft of hairs on hind tibiæ.
*a*⁵. Vein 3 of hind wing well before end of cell.
ÆTHILLA, Hew. Type, *elcusinia*, Hew. (40)
- b*⁶. Vein 3 of hind wing immediately before end of cell.
HANTANA, Moore. Type, *infernus*, Feld. (38)
- b*⁴. Club of antennæ sickle-shaped.
*a*⁵. Male with a costal fold on fore wing, and a tuft of hairs
near base of hind wing on upperside.
CÆCINA, Hew. Type, *caluthana*, Hew. (36)
- b*⁵. Male with no costal fold on fore wing, but with a tuft of
hair at base of abdominal fold on underside of hind wing.
ABLEPSIS, g. n. Type, *vulpinus*, Hübn. (37)
- c*⁴. Antennal club angled, not hooked or sickle-shaped.
ANCISTROCAMPTA, Feld. Type, *hiarbas*, Cram. (41)
- b*¹. Palpi porrect, divergent; third joint long, slender, naked.
*a*². Outer margin of hind wing crenulated.
HYDRÆNOMIA, Butl. Type, *orecinus*, Feld. (42)
- b*². Outer margin of hind wing even.
*a*³. Hind wing much elongated.
PARADROS, g. n. Type, *phanice*, Hew. (43)
- b*³. Hind wing not elongated, but with a distinct anal lobe.
*a*⁴. Vein 3 of hind wing from before end of cell.
LIGYOSTOLA, Mab. Type, *pemphigargyra*, Mab. (44)
- b*⁴. Vein 3 of hind wing from end of cell.
PHANUS, Hübn. Type, *vitreus*, Cram. (45)
- b*. Hind tibiæ only with terminal pair of spurs.
*a*¹. Palpi porrect, divergent; third joint long, slender, naked.
*a*². Male with a costal fold on fore wing.
HYALOTHYRUS, Mab. Type, *nitocris*, Cram. (46)
- b*². No costal fold on fore wing of male.
EXTUEUS, Hübn. Type, *pculus*, Linn. (47)
- b*¹. Palpi, third joint minute, bluntly conical.
*a*². Hind wing not elongated.
CABIRUS, Hübn. Type, *julettus*, Stoll. (48)
- b*². Hind wing very conspicuously elongated.
GRYNOPSIS, g. n. Type, *calceste*, Westw. (49)

1. Genus POLYTHRIX, nov.

Type, *metallesceus*, Mabilie.

Neuration and antennæ as in *Eudamus*. Differs in having in the male a tuft of hair at the base of the submedian on the underside of the fore wing, and in the costa of the hind wing being strongly arched at base.

metallesceus, Mab. 1.

The characters separating this genus from *Eudamus* being entirely of a sexual character, it would probably be more correct to regard it as a subgenus of *Eudamus*.

South American only.

2. Genus EUDAMUS. (Plate III. fig. 3.)

Eudamus, Swainson, Ill. ii. p. 48 (1832-33).Type, *proteus*, Linnæus.

Antennæ: club bent into a hook just beyond the thickest part and tapering to a fine point.

Male with a costal fold except in *eurycles* and *orion*.

Cell of fore wing very long; discocellulars inwardly oblique and in the same straight line, upper discocellulars reduced to a point; vein 9 equidistant from 8 and 10; vein 5 rather nearer to 4 than to 6; vein 2 from near base of wing; vein 3 more than twice as far from 2 as from 4; lower branch of veinlet in cell just before vein 4. Hind wing produced into a tail of varying length; vein 5 wanting; discocellulars hardly traceable; vein 3 just before end of cell; vein 2 nearer to 3 than to 1; vein 7 well before end of cell.

<i>proteus</i> , Linn.	1.	<i>virescens</i> , Mab.	17.
* <i>esmeraldus</i> , Butl.	2.	<i>orion</i> , Cram.	18.
<i>santiago</i> , Luc.	3.	<i>brachius</i> , Hübn.	19.
* <i>amisus</i> , Hew.	4.	<i>chaleo</i> , Hübn.	20.
<i>dorantes</i> , Stoll.	5.	<i>metopis</i> , Latr.	21.
* <i>undulatus</i> , Hew.	6.	? <i>hirtius</i> , Butl.	22.
* <i>aminias</i> , Hew.	7.	* <i>asine</i> , Hew.	23.
<i>catillus</i> , Cram.	8.	<i>ganna</i> , Mösch.	24.
<i>jethira</i> , Hew.	9.	* <i>auginus</i> , Hew.	25.
* <i>albofasciatus</i> , Hew. ...	10.	<i>nicastus</i> , Plötz.	26.
<i>zilpa</i> , Butl.	11.	{ <i>larius</i> , Plötz.	27.
* <i>alcaeus</i> , Hew.	12.	{ * <i>corydon</i> , Butl.	
<i>simplicius</i> , Stoll.	13.	<i>trebia</i> , Mösch.	28.
<i>eurycles</i> , Latr.	14.	<i>evenus</i> , Mén.	29.
<i>latipennis</i> , Mab.	15.	{ <i>octomaculata</i> , Sepp ...	30.
<i>carmelita</i> , H.-S. ...	16.	<i>calenus</i> , Mab.	

And eight unidentified species.

Habitat. Tropical America.

3. Genus GONIURUS.

Goniurus, Hübner, Verz. p. 104 (1816). Type, *cælus*, Cramer.

Antennæ: club rather slender, bent into a hook, the terminal portion about as long as rest of club. Palpi: second joint densely scaled; third joint short, porrect, obtusely conical. Fore wing: inner and outer margins subequal; male with a costal fold; cell more than two-thirds the length of costa; discocellulars very oblique, the middle one slightly the longer; vein 3 shortly before the end of cell; vein 2 close to base of wing. Hind wing with a very conspicuous tooth or short tail at vein 1 *b*; vein 7 shortly before the end of cell; discocellulars and vein 5 barely traceable; vein 3 immediately before the end of cell; vein 2 slightly nearer to end of cell than to base of wing. Hind tibiæ fringed, and with two pairs of spurs.

{ *cælus*, Cram.
 { **aurunce*, Hew.

Habitat. South America.

4. Genus PLESTIA. (Plate III. fig. 4.)

Plestia, Mabilie, Le Naturaliste, p. 146 (1888).Type, *staudingeri*, Mab.

Antennæ: club rather flattened, sickle-shaped, the thickening and tapering very gradual, terminating in a fine joint. Fore wing: male with a costal fold; cell more than two thirds length of fore wing; upper discocellular minute; middle and lower discocellulars inwardly oblique, the middle the longer; vein 9 equidistant from 8 and 10; vein 2 from near base of wing; vein 3 about four times as far from 2 as from 4; vein 5 nearer 6 than 4. Hind wing produced into a short tail; vein 5 wanting; discocellulars barely traceable; vein 3 from just before end of cell; vein 2 rather nearer to 3 than to base of wing.

dorus, Edwards 1.*Habitat.* The Mexican subregion.

5. Genus TARSOCTENUS, nov. (Plates I. fig. 6; II. fig. 13.)

Type, *plutia*, Hewitson.Allied to *Phocides*.

Antennæ: club moderate, with a slender terminal hook. Palpi: second joint densely scaled; third joint naked, more prominent than in *Phocides*. Fore wing: male with costal fold; cell considerably more than two-thirds length of costa; discocellulars slightly oblique, middle slightly longer than lower; upper discocellular very short; vein 3 about half as far again from 2 as from 4; vein 2 nearer to base of wing than to vein 3. Hind wing with a distinct lobe at end of vein 1 *b*; vein 7 well before end of cell; discocellulars very faint, slightly outwardly oblique; vein 5 barely traceable; vein 3 rather nearer to end of cell than to vein 2; vein 2 almost equidistant from base of wing and from end of cell. Hind tibiæ in both sexes very short, with only a terminal pair of spurs. In the male one of these spurs is much produced, and the proximal end of the tarsus bears beneath on either side a comb of yellowish bristles which, when the tarsus is straightened out, enclose the lengthened spur. This character is less developed in *papias* than in the other species of the genus.

* *plutia*, Hew. 1.{ *corytas*, Cram. 2.{ *pyramus*, Cram.* *præcia*, Hew. 3.* *papias*, Hew. 4.

One species, *gaudialis*, Hew., also belongs to this genus, but it is not in the British Museum.

Confined to tropical America.

6. Genus PHOCIDES. (Plates I. fig. 5; III. fig. 2.)

Phocides, Hübn Verz. p. 103 (1816). Type, *palcmon*, Cramer.*Erycides*, Hübn. Verz. p. 110 (1816). Type, *pigmalion*, Cramer.*Dysenius*, Sc. Syst. Rev. p. 46 (1872). Type, *albicilla*, H.-S.

Antennæ: club rather robust, extremity very fine, forming a hook

with remainder of club. Palpi well separated, thickly scaled, forming two square projections in front of the face; third joint hardly visible. Fore wing: male with a costal fold; cell more than two-thirds length of costa; discocellulars very oblique, middle one straight, lower strongly arched and much the longer; vein 3 just before end of cell; vein 2 about twice as far from 3 as from base of wing. Hind wing much elongated; vein 3 immediately before end of cell; vein 5 wanting. Hind tibiæ with two pairs of spurs.

This genus is readily recognized by the unique character of the lower discocellular of the fore wing.

<i>pigmalion</i> , Cram.	1.	<i>yokhara</i> , Butl.	7.
<i>batabano</i> , Luc.	2.	<i>lilia</i> , Reak.	8.
* <i>urania</i> , Westw.	3.	<i>socius</i> , Butl.	
* <i>pialia</i> , Hew.	4.	<i>albicilla</i> , H.-S.	
* <i>charonotis</i> , Hew.	5.	<i>palemon</i> , Cram.	9.
* <i>creades</i> , Hew.	6.	<i>cruentus</i> , Hübn.	

Found throughout tropical America.

7. Genus HYPOCRYPTOTHRIX, nov.

Type, *teutas*, Hew.

Antennæ: club moderately robust, bent into a hook. Fore wing: male with a costal fold; cell slightly more than two-thirds length of costa; upper discocellular very short, lower and middle discocellulars inwardly oblique, subequal; veinlet in cell at vein 4; vein 3 close to end of cell, about four times as far from 2 as from 4. Hind wing slightly lobate; vein 8 arched at base, then bent abruptly, sinuated for its terminal three fourths, and approaching very close to vein 7; vein 7 from close to the base of wing; discocellulars very faint, strongly outwardly oblique; vein 5 wanting; vein 3 from end of cell; vein 2 nearer to end of cell than to base of wing. Hind tibiæ with two pairs of spurs.

Male with a tuft of hair on underside of fore wing at base of submedian. Allied to *Tarsoctenus*.

* *teutas*, Hew. 1.

Confined to tropical South America.

8. Genus HETEROPIA.

Heteropia, Mabille, Le Naturaliste, p. 68 (1889).

Type, *imitatrix*, Mabille.

Antennæ: club moderate, gradually thickened and gradually tapering to a fine point, bent into a hook. Palpi as in *Thymele*. Fore wing: cell just two-thirds length of costa; veinlet in cell at vein 4; no costal fold in male; upper discocellular very short, middle and lower discocellulars inwardly oblique, subequal; vein 3 close to end of cell, twice as far from 2 as from 4; vein 2 well removed from base of wing, only slightly nearer to base than to vein 3. Hind wing slightly angled at vein 1 *b*; cell moderate, vein 7 more than twice as far from base as from end of cell; vein 3 from end of

cell; vein 2 slightly nearer to end of cell than to base of wing. Hind tibiæ with two pairs of spurs.

{ <i>imalena</i> , Butl.	1.
{ <i>imitatrix</i> , Mab.	
* <i>bryaxis</i> , Hew.	2.

And two unidentified species.

Confined to Central and South America.

9. GENUS SPATHILEPIA.

Spathilepia, Butler, Ent. Mon. Mag. vii. p. 57 (1870).

Type, *clonius*, Cramer.

Antennæ: club moderate, very gradually thickened, bent into a hook, the terminal portion not quite as long as rest of club. Palpi porrect, second joint densely scaled, third joint short. Fore wing: outer margin longer than inner margin; outer margin angled at vein 5, the upper portion almost at right angles to costa, the lower portion running obliquely to outer angle; male with a costal fold; cell more than two-thirds the length of costa; vein 12 reaching costa before end of cell; upper discocellular minute; middle and lower discocellulars inwardly oblique, the middle one about twice as long as lower one; vein 3 three times as far from base as from end of cell; vein 2 three times as far from end of cell as from base of wing. Hind wing toothed at vein 1 δ ; vein 7 three times as far from 8 as from 6; discocellulars faint, almost erect; vein 5 wanting; vein 3 just before end of cell; vein 2 slightly nearer to end of cell than to base of wing. Hind tibiæ thickly fringed and with two pairs of spurs.

clonius, Cram. 1.

Inhabits Central and South America.

10. GENUS EPARGYREUS. (Plate I: fig. 4.)

Epargyreus, Hübner, Verz. p. 105 (1816). Type, *tityrus*, Fabr.

Epargyreus, Scudder, Butt. N. Engl. vol. ii. p. 1399 (1889).

Type, *tityrus*, Fabr.

Antennæ: rather more robust than in *Thymele*, otherwise very similar. Palpi densely scaled, third joint almost entirely concealed by the scales of the second joint. Fore wing: male with a costal fold; cell more than two-thirds length of costa; veinlet in cell from just behind vein 3; vein 12 reaching costa well before end of cell; upper discocellular minute, middle and lower discocellulars inwardly oblique and in the same straight line; vein 3 less than twice as far from 2 as from end of cell; vein 2 more than twice as far from 3 as from base of wing. Hind wing prominently toothed at vein 1 δ ; vein 7 more than twice as far from base of wing as from end of cell; discocellulars hardly traceable, slightly outwardly oblique; vein 5 wanting; vein 3 well before end of cell, about twice as far from 2 as from 4; vein 2 slightly further from end of cell than from base of wing. Hind tibiæ with two pairs of spurs.

This genus is closely allied to *Proteides*, from which it differs

chiefly in the less truncate apex to the fore wing, and the slightly different relative positions of the median branches. The male also is provided with a costal fold, which is wanting in *Proteides*.

<i>tityrus</i> , Fabr.	1.	<i>exadeus</i> , Cram.	6.
<i>clarus</i> , Cram.		* <i>asander</i> , Hew.	7.
<i>pseudexadeus</i> , Westw. ...	2.	* <i>enispe</i> , Hew.	8.
<i>socus</i> , Hübn.	3.	<i>zestos</i> , Hübn.	9.
* <i>barisses</i> , Hew.	4.	<i>talus</i> , Cram.	10.
* <i>antæus</i> , Hew.	5.		

And two unidentified species.

American and West Indian.

11. GENUS *PROTEIDES*.

Proteides, Hübner, Verz. p. 105 (1816). Type, *idas*, Cramer.

Dicranaspis, Mabilie, Ann. Soc. Ent. Belge, xxi. p. 24 (1878).

Type, *idas*, Cramer.

Antennæ: club abruptly thickened, very robust, bent into a hook, terminal portion short and gradually tapering. Fore wing: no costal fold in male; cell very long, almost three-fourths length of costa; vein 12 reaching costa before the end of cell; vein 10 nearer to 9 than to 11; vein 9 nearer to 8 than to 10; upper discocellular minute, middle and lower discocellulars inwardly oblique; vein 5 considerably nearer to 4 than to 6; vein 3 slightly nearer to end of cell than to vein 2; vein 2 less than twice as far from vein 3 as from base of wing. Fore wing much produced at apex, costa about one and a half times the length of inner margin; outer margin at almost a right angle with costa from apex to vein 5, then very oblique to outer angle. Hind wing prominently toothed at submedian; cell moderate; vein 7 well before end of cell; discocellulars very faint; vein 5 wanting; vein 3 well before end of cell; vein 2 nearer to end of cell than to base of wing, and twice as far from 3 as 3 is from 4. Hind tibiæ with two pairs of spurs.

idas, Cramer 1.

And two unidentified species.

Confined to tropical America and the West Indies.

12. GENUS *CHRYSOPECTRUM*, NOV. (Plate II. fig. 15.)

Type, *otriades*, Hewitson.

Antennæ: club moderate, bent into a hook, terminal portion very slender, rather more than half as long as remainder of club. Terminal joint of palpi minute, obtusely conical. Fore wing: outer margin considerably longer than inner margin; male with a costal fold; cell scarcely two-thirds length of costa; vein 12 reaching costa before the end of cell; upper discocellular minute, middle discocellular inwardly oblique, lower almost erect, the middle one the longer; vein 3 more than three times as far from base of wing as from end of cell, twice as far from vein 2 as from 4; veinlet in cell from just before vein 4. Hind wing strongly arched at base, rather

elongated; outer margin almost straight in male, slightly more convex in female; a tooth-like lobe at anal angle; vein 7 more than twice as far from 8 as from 6; discocellulars erect; vein 3 from end of cell; vein 2 twice as far from base of wing as from end of cell. Hind tibiæ with a long fringe and two pairs of spurs, the terminal pair very long. On the hind tarsi of the male below there are two series of densely set golden spines.

**otriades*, Hew. 1.

And two unnamed species.

Confined to South America.

13. GENUS ACOLASTUS.

Polygonus, Hübner, Exot. Schmett. ii. (1822).

Type, *amynas*, Fabr. (nom. præocc.).

Acolastus, Scudder, Syst. Rev. p. 50 (1872). Type, *savignyi*, Latr.

Antennæ: club moderate, bent into a hook, terminal portion very slender, rather more than half as long as remainder of club; terminal joint of palpi minute, conical. Fore wing: outer and inner margins subequal, no costal fold in male; cell considerably more than two-thirds length of costa; upper discocellular short; middle and lower discocellulars subequal, inwardly oblique, and in the same straight line; vein 12 reaching costa well before the end of cell; vein 3 remote from end of cell, twice as far from base of wing as from end of cell; vein 2 more than twice as far from end of cell as from base of wing; veinlet beyond vein 3, median slightly angled where it meets it. Hind wing: costa strongly arched at base, outer margin rounded, a conspicuous tooth-like lobe at anal angle; vein 7 twice as far from 8 as from 6; discocellulars almost erect; vein 5 wanting; veins 3 and 2 both from shortly before end of cell; vein 3 nearer to 4 than to 2; vein 2 considerably further from base of wing than from end of cell. Hind tibiæ fringed, and with two pairs of spurs.

{ *amynas*, Fabr. 1.
 licidus, Hübner.
 savignyi, Latr.

This genus appears to be closely allied to *Proteides*.

Habitat. South America and West Indies.

14. GENUS TELEGONUS.

Telegonus, Hübner, Verz. bek. Schmett. p. 104 (1816).

Type, *anaphus*, Cramer.

Antennæ: thickening of club slight and very gradual; club bent usually at about a right angle, occasionally to less, the terminal portion about as long as rest of club. Palpi: second joint densely scaled, third joint minute. Fore wing: outer margin much longer than inner margin; cell just over two-thirds the length of costa; no costal fold in male; vein 12 reaching costa well before the end of

cell; upper discocellular minute, middle and lower discocellulars oblique in the same straight line, the upper slightly the longer; vein 3 rather more than twice as far from base of wing as from end of cell; vein 2 about three times as far from end of cell as from base of wing; veinlet in cell shortly before vein 4. Hind wing produced into a lobe at anal angle, outer margin evenly rounded; vein 7 well before end of cell, slightly nearer to 6 than to 8; discocellulars very faint, almost erect; vein 5 wanting; vein 3 just before end of cell; vein 2 rather nearer to end of cell than to base of wing. Hind tibiæ fringed, and with two pairs of spurs.

Closely allied to *Thymeles*, differs from it slightly in neururation and in the absence of the costal fold on the fore wing of the male.

<i>apastus</i> , Cram.	1.	{	<i>creticus</i> , Cram.	6.
<i>anaphus</i> , Cram.	2.		<i>parmenides</i> , Cram.	
<i>alaridus</i> , Stoll	3.		* <i>meretrix</i> , Hew.	7.
<i>habana</i> , Luc.	4.		* <i>centrites</i> , Hew.	8.
* <i>clorvus</i> , Hew.	5.			

And four unidentified species.

Confined to tropical America.

15. Genus THYMELE.

Thymeles, Fabr. Ill. Mag. vi. p. 287 (1807). Type, *mercatus*, Fabr. *Astraptus*, Hübner, Verz. p. 103 (1816). Type, *aulestes*, Cramer. *Euthymeles*, Mabille, Ann. Soc. Ent. Belge, xxi. p. 24 (1878).

Type not specified.

Antennæ; club slender, gradually thickened and gradually tapering to a fine point, abruptly bent into a hook just beyond its thickest portion. Palpi well separated, third joint minute. Fore wing: male with a costal fold; cell two-thirds length of costa; veinlet in cell just before vein 4; vein 12 reaching costa well before end of cell; upper discocellular minute, lower and middle discocellulars subequal, inwardly oblique, and in the same straight line; vein 3 rather more than twice as far from 2 as from end of cell; vein 2 about one and a half times as far from 3 as from base of wing. Hind wing much produced in submedian area and slightly toothed at submedian nervule; cell short, not reaching half across wing; vein 4 much longer than the lower margin of the cell; vein 7 rather nearer to end of cell than to base of wing; discocellulars barely traceable, almost erect; vein 5 wanting; vein 3 from immediately before end of cell; vein 2 nearer to end of cell than to base of wing. Hind tibiæ thickly fringed and with two pairs of spurs.

Of the four species included by M. Mabille in his genus *Euthymeles*, two belong to *Thymeles* and two to *Telegonus*.

{	<i>fulgurator</i> , Walch.	1.	|	<i>colossus</i> , H.-S.	4.
	<i>mercatus</i> , Fabr.			<i>egregius</i> , Butl.	5.
	* <i>naos</i> , Hew.	2.		<i>enotrus</i> , Cram.	6.
	<i>aulestes</i> , Cram.	3.		* <i>halesius</i> , Hew.	7.

Confined to tropical America.

16. Genus *TELEMIADES*.

Telemiades, Hübner, Verz. p. 106 (1816). Type, *avitus*, Cramer.

Antennæ: club moderate, strongly hooked, terminal portion very slender and slightly shorter than remainder of the club. Palpi: second joint densely scaled, third joint short and obtuse. Fore wing: inner and outer margins subequal; male with a costal fold; cell two-thirds length of costa; vein 12 reaching costa before end of cell; upper discocellular minute; middle and lower discocellular inwardly oblique, the lower the longer; vein 3 close to end of cell, three times as far from base of wing as from end of cell; vein 2 nearer to base of wing than to vein 3. Hind wing evenly rounded, rather produced at anal angle; vein 7 about three times as far from base of wing as from end of cell; discocellulars and vein 5 barely traceable; vein 3 from end of cell; vein 2 about twice as far from base of wing as from end of cell. Hind tibiæ with two pairs of spurs, upper pair minute.

<i>avitus</i> , Cramer	1.
* <i>phasias</i> , Hew.	2.
* <i>penidas</i> , Hew.	3.
* <i>azines</i> , Hew.	4.
<i>amphion</i> , Hübner.	5.

Confined to South America.

17. Genus *DYSCOPHUS*. (Plate III. fig. 8.)

Dyscophus, Burmeister, Descr. Rep. Arg. v. p. 291 (1878).

Type, *sebalus*, Cramer.

Antennæ: club moderate, hooked, terminal portion very fine, as long as rest of club. Fore wing: male with a costal fold; cell more than two-thirds length of costa; outer margin longer than inner margin; outer end of cell oval; upper discocellular short but distinct, outwardly oblique; middle discocellular erect; lower discocellular inwardly oblique, longer than the middle one; veinlet just before vein 4; vein 4 opposite vein 8; vein 12 reaching costa before end of cell; vein 3 about half as far again from 2 as from 4; vein 2 nearer to base of wing than to vein 3. Hind wing produced in submedian area; outer margin angled at vein 2 and again at vein 1 b; vein 7 well before end of cell, more than twice as far from vein 8 as from 6; upper discocellular straight, lower slightly outwardly oblique; vein 5 wanting; vein 3 just before end of cell; vein 2 more than twice as far from base of wing as from end of cell. Hind tibiæ densely fringed and with two pairs of spurs.

{	<i>sebalus</i> , Cram.	1.
	<i>crameri</i> , Latr.	
{	* <i>doriscus</i> , Hew.	2.
	<i>cæcutiens</i> , H.-S.	

Confined to South America.

18. Genus *NASCUS*, nov.

Type, *phocus*, Cramer.

Antennæ: club rather robust, bent into a hook, terminal portion very slender and rather longer than rest of club. Palpi upturned, third joint almost concealed. Fore wing: outer margin very much longer than inner margin, the apex being very conspicuously produced; cell more than two-thirds the length of costa; male with a costal fold; discocellulars very oblique, the lower one slightly the longer; vein 3 shortly before end of cell; vein 2 close to base of wing. Hind wing anally produced, and with an inconspicuous tooth at vein 1*b*; vein 7 close to end of cell; discocellulars and vein 5 barely traceable; vein 3 immediately before the end of the cell; vein 2 considerably nearer to end of cell than to base of wing. Hind tibiæ with a long fringe of coarse hairs and with two pairs of spurs.

{	<i>phocus</i> , Cram.	♂	.....	1.
	* <i>pherenice</i> , Hew.	♀		
	<i>broteas</i> , Cram.	♀	.....	2.
{	<i>euribates</i> , Cram.	♀	.....	3.
	<i>nicias</i> , Fabr.	♂		
	* <i>hesus</i> , Westw.	♂		
{	* <i>etias</i> , Hew.	♀		
	* <i>eriopis</i> , Hew.	♂	.....	4.
	<i>cæpio</i> , H.-S.	♂ ♀	.....	5.
	<i>cephise</i> , H.-S.	♂ ♀	.....	6.

And three unidentified species.

Confined to South America.

19. Genus *BUNGALOTIS*, nov. (Plate III. fig. 7.)

Type, *midas*, Cramer.

Antennæ: club very gradually thickened and tapering to a fine point, bent at about a right angle; terminal portion very long, about twice as long as remainder of club, and about one-fourth of the whole antenna. Palpi: third joint entirely concealed by the scales of the second joint. Fore wing: inner margin longer than outer margin, cell more than two-thirds the length of costa; male with a very prominent costal fold; discocellulars almost erect, subequal; vein 3 more than three times as far from base of wing as from end of cell; vein 2 less than three times as far from end of cell as from base of wing. Hind wing produced at anal angle, but with no conspicuous lobe; vein 7 well before end of cell, less than twice as far from 8 as from 6; discocellulars slightly outwardly oblique; vein 3 before end of cell; vein 2 twice as far from 3 as 3 is from 4, and twice as far from base of wing as from 3. Hind tibiæ with a rather long fringe and two pairs of spurs. The costa of the hind wing in the male of the type species is black with bluish reflections. a character which is probably sexual.

<i>midas</i> , Cramer.	♂	.....	1.	<i>erythus</i> , Cramer.	♀	.....	6.
<i>astylos</i> , Cramer.	♀	.....	2.	* <i>nicéphorus</i> , Hew.	♂	...	7.
* <i>phascelis</i> , Hew.	♂♀	.....	3.	{ <i>sebrus</i> , Feld.	♂	.....	8.
<i>poligijs</i> , Latr.	♀	.....	4.	{ * <i>pelignus</i> , Hew.	♂		
{ <i>ramusis</i> , Cramer.	♀	...	5.	{ * <i>gonatus</i> , Hew.	♀		
* <i>astrapæus</i> , Hew.	♂♀			{ <i>heras</i> , Mab.	♂♀	.....	9.

Confined to South America.

20. Genus *PTEROXYS*, nov.

Type, *phaneus*, Hewitson.

Antennæ: club short, rather abruptly thickened and tapering to a fine point, bent at about a right angle at its thickest part, the terminal portion longer than the rest of the club; second joint of palpi densely scaled; the third joint almost entirely concealed. Fore wing: inner and outer margins subequal; male with a costal fold; cell of fore wing three-fifths length of fore wing; vein 12 reaching costa just before end of cell; vein 6 well below end of cell; upper discocellular short but distinct; middle and lower discocellulars slightly oblique, the lower rather the longer; vein 3 shortly before end of cell, about four times as far from vein 4 as from base of wing; vein 2 less than twice as far from end of cell as from base of wing. Hind wing: vein 7 about three times as far from base of wing as from end of cell; middle discocellular erect, lower outwardly concave, the lower much the longer; vein 5 from their angle; vein 3 from end of cell; vein 2 twice as far from base as from end of cell; outer margin even, lobe inconspicuous. Hind tibiæ with two pairs of spurs and a long tuft of hair from proximal end.

**phaneus*, Hew. 1.

**tidderdali*, Elwes 2.

Confined to the Oriental region.

21. Genus *CASYAPA*.

Casyapa, Kirby, Syn. Cat. Diurn. Lep. p. 576 (1871).

Type, *corvus*, Felder.

Chaetocneme, Felder, Sitzb. Ak. Wiss., math.-nat. Cl. vol. xl. p. 460 (1860) (nom. præocc.).

Antennæ long; club moderate, gradually thickened, tapering to a fine point; terminal portion bent but not hooked. Fore wing: male with a costal fold; inner and outer margins subequal; cell just two-thirds the length of costa; vein 12 reaching costa before the end of cell; vein 8 from upper angle of cell; vein 7 below angle; upper discocellular short, distinct, almost erect; middle and lower discocellulars subequal, erect, and in the same straight line; vein 5 equidistant from 4 and 6; vein 3 well before end of cell, rather more than twice as far from base of wing as from end of cell; vein 2 three times as far from end of cell as from base of wing. Hind wing evenly rounded, not produced into a lobe; cell long, extending more than half across wing; vein 7 shortly before end of cell, three times as far from 8 as from 6; discocellulars faint, nearly erect; vein 5 wanting; vein 3 just before end of cell; vein 2 three times as far from base of wing as from end of cell. Hind tibiæ densely fringed and with only the terminal pair of spurs.

corvus, Felder 1.

critomedia, Guér. 2.

odia, Boisd.

**caristus*, Hew.

Confined to the East Indies.

22. Genus PHÆNICOPS, nov. (Plate III. fig. 6.)

Type, *beata*, Hew.

Antennæ: club moderate, gradually thickened and gradually tapering to a point, bent into a crescent, and not abruptly angled. Palpi porrect; third joint minute, entirely concealed by scales of second joint. Fore wing: outer margin longer than inner margin, and more or less angled at vein 5; no costal fold on fore wing in male; cell two-thirds length of costa; upper discocellular short, middle discocellular almost erect, lower more oblique and slightly longer; veinlet in cell from just above vein 4; vein 3 close to end of cell, quite five times as far from base of wing as from end of cell; vein 2 rather more than twice as far from end of cell as from base of wing. Hind wing: no anal lobe, outer margin more or less angled at vein 3; vein 7 more than twice as far from 8 as from 6; upper discocellular short, erect, lower longer, outwardly concave; vein 5 present; veinlet in cell clearly traceable, the two branches meeting the upper and lower discocellulars respectively; vein 3 just before end of cell; vein 2 almost three times as far from base of wing as from end of cell. Hind tibiæ with only the terminal pair of spurs, and in the male with a complete fringe of very long hairs.

**beata*, Hew. 1.

**devitza*, Hew. 2.

Confined to the Australian region.

23. Genus CAPILA.

Capila, Moore, P. Z. S. 1865, p. 785. Type, *jayadeva*, Moore.

Antennæ: club only slightly thicker than shaft, very gradually thickening and as gradually tapering to a fine point, evenly curved into a hook. Palpi: second joint clothed with longish hairs; third joint short, porrect. Fore wing: no costal fold in male; cell three-fifths of costa; outer margin longer than inner margin; vein 12 reaching costa opposite end of cell; vein 11 nearly opposite vein 3; vein 10 equidistant from 9 and 11; end of cell broadly truncate; upper discocellular minute, middle and lower discocellulars almost erect and in the same straight line, the lower the longer; veinlet beyond vein 4; vein 3 about twice as far from 2 as from end of cell; vein 2 slightly nearer to base of wing than to vein 3. Hind wing evenly rounded; vein 7 shortly before end of cell; middle discocellular almost erect, lower angled, the upper part inwardly oblique, the lower part outwardly oblique; vein 5 well developed; vein 3 just before end of cell; vein 2 close to end of cell, more than three times as far from base of wing as from end of cell. Hind tibiæ with two pairs of spurs, and with a tuft of hairs longer than the tibia attached to it near its proximal end.

Closely allied to *Pisola*.

**jayadeva*, Moore 1.

Confined to the Indian subregion.

24. Genus *CALLIANA*.

Calliana, Moore, P. Z. S. 1878, p. 686. Type, *pieridoides*, Moore.
[Antennæ wanting.]

Palpi almost erect, second joint thickly scaled, third joint minute. Fore wing: inner margin longer than outer margin; no costal fold in male; vein 12 reaching costa opposite end of cell; cell two-thirds length of costa; upper angle of cell rounded; upper discocellular short, outwardly oblique; middle and lower discocellulars almost erect, the lower the longer; vein 3 about twice as far from 2 as from end of cell; vein 2 slightly nearer to base of wing than to 3: veinlet in cell at just before vein 4. Hind wing evenly rounded; cell moderate, about half the length of costa; vein 7 shortly before end of cell, more than four times as far from base as from end of cell; middle discocellulars slightly outwardly oblique, lower slightly inwardly oblique, the lower about half as long again as the middle one; vein 5 well developed, much nearer to 6 than to 4; vein 3 just before end of cell; vein 2 more than twice as far from base as from end of cell. Hind tibiæ with two pairs of spurs, and also with a tuft of hair longer than the tibia attached to it near its proximal end.

The sole species of this genus is *pieridoides*, Moore, which is not in the British Museum. The above diagnosis is from the type specimen kindly lent me for that purpose by Mr. Moore.

Confined to the Oriental region.

25. Genus *PISOLA*.

Pisola, Moore, P. Z. S. 1865, p. 785. Type, *zennara*, Moore.

Antennæ and palpi much as in *Capila*. Fore wing: inner margin considerably longer than outer margin; venuration as in *Calliana*, from which it differs only in having no tuft on the hind tibiæ in the male.

<i>zennara</i> , Moore	1.
<i>cerinthus</i> , Felder	2.

Confined to Asia.

26. Genus *CECROPTERUS*.

Cecropterus, Herr.-Schäff. Prodr. Syst. Lep. iii. p. 45 (1869).

Type, *zarex*, Hübn.

Antennæ: club moderate, bent into a hook, the terminal portion equal to remainder of club. Palpi porrect, second joint densely scaled, third joint small. Fore wing: outer margin longer than inner margin; no costal fold in male; cell long, more than two-thirds length of fore wing; vein 12 reaching costa before end of cell; upper discocellular minute, middle discocellular inwardly oblique, lower more erect; vein 5 nearer to 4 than to 6; vein 3 more than four times as far from base of wing as from end of cell; vein 2 twice as far from end of cell as from base of wing. Hind wing much produced in submedian area, but with no distinct lobe

or tail; vein 7 more than twice as far from 8 as from 6; discocellulars very faint, outwardly concave; vein 5 wanting; vein 3 at end of cell; vein 2 less than twice as far from base of wing as from end of cell, nearer to base of wing than vein 7. Hind tibiæ fringed and with two pairs of spurs.

<i>zarea</i> , Hübn.	1.	<i>neis</i> , Hübn.	5.
* <i>avatus</i> , Fabr.	2.	<i>cincta</i> , H.-S.	6.
<i>bipunctatus</i> , Gmel.	3.	* <i>phrynicus</i> , Hew.	7.
<i>itylus</i> , Hübn.	4.		

And three unidentified species.

27. Genus *COGIA*.

Cogia, Butler, Trans. Ent. Soc. Lond. p. 508 (1870).

Type, *hassan*, Butler.

Antennæ: club moderate, bent at about a right angle, tapering to a fine point. Third joint of palpi slightly projecting from the clothing of second joint. Fore wing: outer margin longer than inner margin; no costal fold in male; cell more than three-fifths the length of costa; vein 12 reaching costa before the end of the cell; middle and lower discocellulars inwardly oblique and in the same straight line, the middle the longer; vein 3 twice as far from 2 as from end of cell; vein 2 more than twice as far from end of cell as from base of wing. Hind wing: vein 7 only slightly further from base of wing than from end of cell; discocellulars erect, faint; vein 5 barely traceable; vein 3 just before end of cell; vein 2 rather nearer to end of cell than to base of wing.

Male with an erectile tuft of hairs on upperside of hind wing, attached immediately below the origin of the median nervule.

<i>hassan</i> , Butl.	1.
{ <i>calchas</i> , H.-S.	2.
<i>terranea</i> , Butl.	

And one unidentified species.

Confined to tropical America.

28. Genus *EPHYRIADES*.

Ephyriades, Hübn. Verz. p. 111 (1816). Type, *otreus*, Cramer.

Oileides, Hübn. Exot. Schmett. ii. (1822-26).

Type, *zephodes*, Hübn.

Antennæ as in *Cogia*. Palpi more widely separated, porrect; third joint rather conspicuous. Fore wing: inner and outer margins subequal, or the inner slightly the longer; no costal fold in male; cell just over two-thirds the length of costa; vein 12 reaching costa almost opposite to the end of cell; middle and lower discocellulars almost erect, subequal; vein 5 slightly nearer to 6 than to 4; vein 3 very shortly before end of cell, more than three times as far from 2 as from 4; vein 2 more than twice as far from base of wing as from end of cell. Hind wing: vein 7 close to end of cell, remote from base of wing; discocellulars faint; vein 5 barely

traceable; vein 3 immediately before end of cell; vein 2 considerably nearer to end of cell than to base of wing. Hind tibiæ with two pairs of spurs.

Male with the abdominal fold clothed with long hair-like scales.

{ *otreus*, Cram. 1.
 clericus, Fabr.
 zephodes, Hübner.
 **pekahia*, Hew. ... 2.

And five unidentified species.

Confined to tropical America.

29. Genus THORYBES.

Thorybes, Scudder, Syst. Rev. Am. Butt. p. 50 (1872).

Type, *bathyllus*, Smith-Abb.

Thorybes, Scudder, Butt. East. Un. States, vol. ii. p. 1423 (1889).

Lintneria, Butler, Trans. Ent. Soc. p. 57 (1877) (nom. præocc.).

Type, *daunus*, Cramer.

Antennæ and palpi as in *Achalarus*. Fore wing: inner and outer margins subequal; cell more than two-thirds length of fore wing; vein 12 reaching costa before end of cell; upper discocellular minute, middle and lower discocellulars inwardly oblique and in the same straight line, the lower the longer; vein 3 more than three times as far from base of wing as from end of cell; vein 2 about three times as far from end of cell as from base of wing; veinlet in cell at vein 4. Hind wing: vein 7 about twice as far from 8 as from 6; discocellulars faint, slightly concave outwardly; vein 3 from end of cell; vein 2 rather nearer to end of cell than to base of wing, nearer to base of wing than vein 7; outer margin evenly rounded, slightly angled at vein 1 b. Hind tibiæ with two pairs of spurs.

In this genus the type species, *bathyllus*, is without a costal fold in the male, while the second species, *pylades*, is provided with a fold.

{ *daunus*, Cram. 1.
 bathyllus, Sm.-Abb.
 pylades, Sc. 2.

Confined to America.

30. Genus ACHALARUS.

Achalarus, Scudder, Syst. Rev. Am. Butt. p. 50 (1872).

Type, *lycidas*, Smith-Abb.

Achalarus, Scudder, Butt. East. Un. States, vol. ii. p. 1412 (1889).

Lobocla, Moore, Journ. As. Soc. Beng. vol. liii. pt. 2, p. 51 (1884).

Type, *liliana*, Atkinson.

Antennæ: club moderate, bent into a hook, the terminal portion about as long as rest of club. Palpi porrect, second joint densely scaled, third joint short. Fore wing: inner and outer margins subequal; vein 12 reaching costa before end of cell; male with a costal fold; cell long, more than two-thirds length of costa; upper discocellular minute, middle and lower discocellulars inwardly oblique in

the same straight line, the lower the longer; veinlet at vein 4; vein 3 more than four times as far from base of wing as from end of cell; vein 2 about three times as far from end of cell as from base of wing. Hind wing slightly lobed at anal angle; discocellulars faint, erect; vein 5 present, but very faint; vein 7 three times as far from 8 as from 6; vein 3 just before end of cell; vein 2 almost twice as far from base of wing as from end of cell. Hind tibiæ with two pairs of spurs.

<i>lycidas</i> , Sm.-Abb. 1.	|	<i>casypa</i> , Moore 3.
<i>liliana</i> , Moore 2.	|	<i>bifasciata</i> , Brem. 4.

American and Asian.

31. GENUS RHABDOIDES.

Rhabdoides, Scudder, Butt. East. Un. States, vol. iii. p. 1854 (1889).

Type, *cellus*, Boisduval.

Antennæ, palpi, neurulation, and legs as in *Achalarus*, from which it differs only in the absence of the costal fold in the male.

cellus, Boisd.

And one unidentified species.

Confined to America.

32. GENUS DREPHALYS, nov.

Type, *helixus*, Hew.

Antennæ and palpi as in *Typhedanus*. Fore wing: outer margin slightly longer than inner margin; male with a costal fold; cell of fore wing more than three-fifths the length of costa; vein 12 reaching costa almost opposite end of cell; discocellulars nearly erect; vein 3 well before end of cell, considerably nearer to 4 than to 2; vein 2 close to base of wing, about three times as far from end of cell as from base of wing. Hind wing much produced, but not to a point. Neurulation as in *Typhedanus*.

* *helixus*, Hew.

33. GENUS TYPHEDANUS.

Typhedanus, Butler, Trans. Ent. Soc. Lond. p. 497 (1870).

Type, *zephyus*, Butler.

Antennæ: club moderate, bent into a hook, the terminal portion very slender, about half the length of remainder of club. Palpi: third joint minute, hardly projecting from clothing of second joint. Fore wing much produced apically, outer margin considerably longer than inner margin; cell of fore wing more than two-thirds the length of costa; no costal fold in male; vein 12 reaching costa well before the end of cell; discocellulars inwardly oblique, subequal; vein 5 nearer to 6 than to 4; vein 3 shortly before the end of cell, about twice as far from 2 as from 4; vein 2 twice as far from end of cell as from base of wing. Hind wing produced to a point at the anal angle: outer margin very oblique, slightly concave; vein 7

well before end of cell, almost equidistant from veins 8 and 6; discocellulars and vein 5 barely traceable; vein 3 well before end of cell, equidistant from 2 and 4; vein 2 considerably nearer to end of cell than to base of wing. Male with a tuft of long recumbent hairs lying along the outer edge of the abdominal fold on the upperside of the hind wing and attached along vein 1*b* near its origin. Hind tibiæ with two pairs of spurs.

zephyus, Butler.

Inhabits tropical South America.

34. Genus *ÆCHYDRUS*, nov.

Type, *chersis*, H.-S.

Antennæ: club rather robust, bent into a hook. Palpi porrect; second joint long, densely clothed; third joint short, obtusely conical, almost concealed. Fore wing: apex very truncate, much as in *Spathilepia*; outer margin considerably longer than inner margin; cell two-thirds the length of costa; vein 12 reaching costa almost opposite the end of cell; discocellulars slightly inwardly oblique; vein 5 nearer to 6 than to 4; vein 3 immediately before the end of cell; vein 2 twice as far from end of cell as from base of wing. Hind wing much produced; vein 7 well before end of cell; discocellulars distinct; vein 5 very faint; vein 3 immediately before the end of cell; vein 2 about three times as far from base of wing as from end of cell. Hind tibiæ fringed and with two pairs of spurs.

Male with an erectile tuft of hairs at base of abdominal folds, much as in *Cogia*.

{ *chersis*, H.-S. ... 1.
 { *evclinda*, Butler.
 * *aziris*, Hew. 2.

Confined to tropical America.

35. Genus *PORPHYROGENES*, nov.

Type, *omphale*, Butler.

Antennæ: club very slender, sickle-shaped, terminating in a fine point. Palpi: third joint bluntly conical, slightly projecting from the clothing of the second joint. Fore wing: inner and outer margins subequal; male with a costal fold; vein 12 reaching costa well before the end of cell; cell very long, almost three quarters the length of costa; discocellulars inwardly oblique, the middle slightly the longer; lower margin of cell between veins 3 and 4 arched upwards; vein 3 well before the end of the cell, only slightly farther from 2 than from 4; vein 2 slightly nearer to base of wing than to vein 3. Hind wing: vein 7 shortly before end of cell; discocellulars and vein 5 barely traceable; vein 3 from end of cell; vein 2 more than twice as far from base of wing as from end of cell. Hind tibiæ fringed and with two pairs of spurs.

In the male the inner margin of the fore wing is strongly arched; there is a tuft of short hairs on a silvery patch on the upperside of the hind wing at the origin of vein 8, there being a corresponding

silvery patch on the underside of the fore wing, and the abdominal fold of the hind wing is densely clothed with long hair-like scales.

omphale, Butler 1. | * *pausias*, Hew. 2.

Confined to South America.

36. Genus CÆCINA.

Cæcina, Hewitson, Desc. Hesp. p. 55 (1868).

Type, *calathana*, Hewitson.

Antennæ: club moderate, gradually thickening and gradually tapering to a point, evenly curved, not abruptly bent. Palpi: second joint densely scaled; third joint short, porrect, bluntly pointed. Fore wing: inner margin sinuate, rather longer than outer margin; cell two-thirds the length of costa; vein 12 reaching costa before end of cell; upper discocellular very short; middle and lower discocellulars subequal, inwardly oblique in the same straight line; vein 3 more than three times as far from base of wing as from end of cell; vein 2 about twice as far from end of cell as from base of wing. Hind wing: lobe inconspicuous; vein 7 very shortly before end of cell; discocellulars faint, outwardly oblique; vein 5 wanting; vein 3 just before end of cell; vein 2 hardly twice as far from base of wing as from end of cell. Hind tibiæ almost naked, with two pairs of spurs.

The male has a patch of hairs on the upperside of the hind wing, extending along the upper edge of the subcostal vein from the divarication of the costal to the forking of the subcostal branch, the hairs being flattened on the wing and pointing towards the costa.

* *calathana*, Hew. 1. | * *compusa*, Hew. 2.

Confined to tropical America.

37. Genus ABLEPSIS, nov.

Type, *vulpinus*, Hübn.

Antennæ: club moderate, rather flattened, sickle-shaped. Palpi suberect: second joint pressed close against face, third joint minute. Fore wing: inner and outer margins subequal; no costal fold in male; cell of fore wing more than two-thirds the length of costa; discocellulars inwardly oblique, the lower the longer; veinlet in cell immediately before vein 4; vein 3 shortly before end of cell; vein 2 about three times as far from end of cell as from base of wing; lower margin of cell bent upwards at origin of vein 3. Hind wing evenly rounded; vein 7 well before end of cell; discocellulars and vein 5 barely traceable; vein 3 from end of cell; vein 2 twice as far from base of wing as from end of cell. Hind tibiæ thickly fringed and with two pairs of spurs.

In the male there is a tuft of long hair-like scales attached to the submedian at the base of the abdominal fold on the underside.

vulpinus, Hübn.

And one unidentified species.

Confined to South America.

38. Genus *HANTANA*.*Hantana*, Moore, Lep. Ceyl. vol. i. p. 179 (1881).Type, *infernus*, Felder.

Antennæ: club rather robust, bent at about a right angle. Palpi suberect; second joint pressed close against the face, third joint minute. Fore wing: inner and outer margins subequal; cell more than two-thirds the length of costa; no costal fold in male; vein 12 reaching costa well before the end of cell; discocellulars inwardly oblique, the lower the longer; lower branch of veinlet in cell just before vein 4; upper branch at vein 5; vein 3 shortly before end of cell; vein 2 about three times as far from end of cell as from base of wing. Hind wing evenly rounded; vein 7 well before the end of cell; discocellulars distinct, vein 5 barely traceable; vein 3 immediately before the end of cell; vein 2 twice as far from base of wing as from end of cell. Hind tibiæ with two pairs of spurs, and in the male with a long tuft of hairs attached near the proximal end.

infernus, Felder.*Habitat*. Ceylon.✓39. Genus *MURGARIA*, nov.Type, *albociliatus*, Mab.

Antennæ: club gradually thickened and tapering to a fine point, bent into a hook just beyond the thickest part. Palpi: second joint densely scaled, slightly inclined forward; third joint short, porrect. Fore wing: outer margin slightly longer than inner margin; male with a costal fold; cell more than two-thirds length of costa; vein 12 reaching costa before the end of cell; vein 10 equidistant from 9 and 11; upper discocellular minute; middle and lower discocellulars inwardly oblique, in the same straight line, the middle one the longer; vein 3 twice as far from 2 as from 4, more than three times as far from base of wing as from end of cell. Hind wing inconspicuously lobed; vein 7 more than twice as far from 8 as from 6; discocellulars erect; vein 5 wanting; vein 3 immediately before end of cell; vein 2 about equidistant from end of cell and base of wing. Hind tibiæ very slightly fringed and with two pairs of spurs.

albociliatus, Mab. 1.

And an unidentified species.

Tropical America.

40. Genus *ÆTHILLA*. (Plates II. fig. 16; III. fig. 5.)*Æthilla*, Hewitson, Desc. Hesp. p. 55 (1868).Type, *eleusinia*, Hewitson.? *Eurypterus*, Mabille, Pet. Nouv. ii. p. 162 (1877).Type, *gigas*, Mabille.

Antennæ: club hardly at all thickened, bent at about a right angle; terminal portion long. Palpi: second joint thickly scaled, third joint minute. Fore wing: inner and outer margins subequal; cell two-thirds length of costa; no costal fold in male; vein 12 reaching costa just opposite end of cell; vein 11 opposite vein 3;

vein 9 remote from 10, close to end of cell; vein 6 from upper angle of cell; upper discocellular minute; middle discocellular erect, lower slightly inwardly oblique, the lower rather the longer; vein 3 well before end of cell, about equidistant from 2 and 4, and twice as far from base of wing as from end of cell. Hind wing triangular, hardly lobed at anal angle; vein 7 three times as far from 8 as from 6; discocellulars faint, erect; vein 3 well before end of cell, twice as far from 2 as from 4; vein 2 slightly nearer to end of cell than to base of wing. Hind tibiæ with two pairs of spurs and with a long tuft of coarse hairs attached near the proximal end.

E. gigas, Mab., the type of *Eurypterus*, is not in B. M., but as the other two species, viz. *larochrea*, Butler, and *coracina*, Butler, which M. Mabille puts into his genus, are congeneric with *eleusinia*, Hewitson, the type of *Æthilla*, therefore *gigas* also is presumably an *Æthilla*.

* *eleusinia*, Hew. 1.
 * *coracina*, Butl. 2.
 * *epicra*, Hew. 3.

* *cechina*, Hew. 4.
 v *larochrea*, Butl. 5.

And an unidentified species.

Confined to tropical America.

41. GENUS ANCISTROCAMPTA.

Ancistrocampta, Feld. Wien. ent. Monat. vi. p. 183 (1862).

Type, *hiarbas*, Cramer.

Antennæ: club very slightly thickened, bent at more than a right angle, tapering to a fine point, the front edge of club fringed with short widely set bristles. Palpi: third joint almost invisible. Fore wing: inner and outer margins subequal; no costal fold in male; cell well over two-thirds the length of costa; vein 12 reaching costa well before the end of cell; discocellulars suberect; vein 5 slightly nearer to 6 than to 4; vein 3 well before end of cell, more than twice as far from 2 as from 4; vein 2 remote from 3, twice as far from end of cell as from base of wing. Hind wing: vein 7 shortly before end of cell; discocellulars very faint, slightly inwardly concave; vein 5 just traceable, nearer to 6 than to 4; vein 3 immediately before end of cell; vein 2 only slightly nearer to end of cell than to base of wing. Hind tibiæ with two pairs of spurs, the upper pair minute, and with a tuft of hairs attached near the proximal end.

hiarbas, Cram. 1.
 * *sathina*, Hew. 2.

Confined to tropical South America.

42. GENUS HYDRÆNOMIA.

Hydrænomia, Butler, Ent. Mon. Mag. vii. p. 99 (1870).

Type, *orecinus*, Felder.

Antennæ: club moderate, bent into a hook, terminal portion short. Palpi porrect, divergent; third joint slender, naked, rather short. Fore wing: inner margin longer than outer margin, the

latter excavated from vein 2 to the outer angle; cell two-thirds the length of costa; male with a costal fold; vein 12 reaching costa well before the end of cell; discocellulars suberect; vein 5 nearer to 6 than to 4; vein 3 shortly before end of cell, more than twice as far from 2 as from 4; vein 3 more than twice as far from end of cell as from base of wing. Hind wing: outer margin crenulated; vein 7 well before the end of cell; discocellulars and vein 5 barely traceable; vein 3 shortly before end of cell; vein 2 only slightly nearer to end of cell than to base of wing. Hind tibiæ slightly fringed and with two pairs of spurs.

orcinus, Felder.

Confined to tropical South America.

43. GENUS PARADROS, NOV.

Type, *phœnice*, Hew.

Nearest to *Lignyostola*, Mab., with which it agrees in neururation, except that the veinlet in the cell terminates only just beyond vein 3, and that vein 2 of the fore wing is considerably nearer to the base of the wing. The antennæ are longer and have the club more bent round. The palpi are similar. The hind wing is quite a different shape, being much produced in the submedian area, while in *Lignyostola* it is much produced in the subcostal area. The anal lobe is also comparatively inconspicuous, the outer margin not being excised just before it.

* <i>phœnice</i> , Hew. 1.	|	<i>alemon</i> , Cram. 3.
* <i>cous</i> , Hew. 2.	|	

Confined to South America.

44. GENUS LIGNYOSTOLA.

Lignyostola, Mabilie, Le Naturaliste, p. 221 (1888).

Type, *pemphigargyra*, Mab.

Antennæ: club moderate, bent into an even curve, tapering to a fine point. Palpi porrect, divergent, third joint slender and naked. Fore wing: inner and outer margins subequal; cell more than two thirds the length of costa: vein 12 reaching costa well before the end of cell; veinlet in cell just before vein 5; discocellulars inwardly oblique, subequal, the middle one slightly convex; vein 3 shortly before end of cell, about three times as far from 2 as from 4; vein 3 twice as far from end of cell as from base of wing. Hind wing distinctly lobed; vein 7 well before end of cell, twice as far from 8 as from 6; discocellulars and vein 5 barely traceable; vein 3 immediately before end of cell; vein 2 considerably nearer to end of cell than to base of wing.

Male with a costal fold. Hind tibiæ densely fringed, and with two pairs of spurs, the upper pair short.

{ <i>lacydus</i> , Druce	}	...	1.	}	<i>despecta</i> , Butler 3.
{ <i>pemphigargyra</i> , Mab. }					<i>formosus</i> , Felder 4.
<i>erinitus</i> , Cram. 2.					

And two unidentified species.

Confined to tropical America.

45. Genus PHANUS. (Plate I. fig. 7.)

Phanus, Hübner, Verz. p. 114 (1816). Type, *vitreus*, Cramer.

Antennæ: club very gradually curved into a crescent, short, rather flattened, considerably thicker than shaft, tapering to a fine point. Palpi: second joint upturned, densely scaled; third joint naked, rather conspicuous. Fore wing: inner and outer margins subequal; male with a costal fold; cell more than two-thirds the length of costa; vein 12 reaching costa before end of cell; upper discocellular short but distinct, outwardly oblique; middle and lower discocellulars almost erect, the middle the longer; vein 3 rather more than twice as far from base of wing as from end of cell; vein 2 rather more than twice as far from end of cell as from base of wing. Hind wing prominently lobed at vein 1 *b*; vein 7 rather more than twice as far from 8 as from 6; discocellulars very faint, erect; vein 5 wanting; vein 3 from end of cell; vein 2 more than twice as far from base of wing as from end of cell. Hind tibiæ fringed and with two pairs of spurs.

{ <i>vitreus</i> , Cram.	1.
{ <i>monus</i> , Fabr.	
{ <i>marshalli</i> , Kirby	2.

And one unidentified species.

Confined to tropical America.

46. Genus HYALOTHYRUS.

Hyalothyrys, Mabille, Ann. Ent. Belg. vol. xxi. p. 23 (1878).

Type, *nitocris*, Cramer.

Antennæ rather long; club very slender, hardly thicker than shaft, bent into a slight curve. Palpi porrect, divergent; third joint long, slender, and naked. Fore wing: inner and outer margins subequal; male with a costal fold; cell more than two-thirds the length of costa; vein 12 reaching costa before the end of the cell; discocellulars inwardly oblique, subequal; vein 3 shortly before the end of cell, about three times as far from 2 as from 4; vein 2 three times as far from end of cell as from base of wing. Hind wing well before the end of cell; discocellulars and vein 5 barely traceable; vein 3 immediately before end of cell; vein 2 considerably nearer to end of cell than to base of wing. Hind tibiæ with only a terminal pair of spurs and without a brush. Closely allied to *Entheus*.

{ <i>infernalis</i> , Mösch.	1.
{ <i>neleus</i> , Linn.	2.
{ <i>priscus</i> , Feld.	

Confined to South America.

47. Genus ENTHEUS. (Plate III. fig. 9.)

Entheus, Hübner, Verz. p. 114 (1816).

Type, *peleus*, Linn.

Phareus, Westw. Gen. D. L. p. 515 (1852).

Types, *gentius*, Cr.,
and *peleus*, Linn.

Antennæ: club slender, evenly curved into a crescent. Palpi

porrect, divergent; third joint long and slender. Fore wing: inner margin longer than outer margin; no costal fold in male; cell two-thirds the length of costa; vein 12 reaching costa well before the end of cell; discocellulars suberect; vein 5 slightly nearer to 6 than to 4; vein 3 shortly before end of cell, more than three times as far from 2 as from 4; vein 2 rather more than twice as far from end of cell as from base of wing. Hind wing: vein 7 shortly before end of cell; discocellulars and vein 5 hardly traceable; vein 3 just before end of cell; vein 2 about equidistant from base of wing and end of cell. Hind tibiæ very short, only with terminal pair of spurs, which are very long.

In the male there is a tuft of hairs attached to the proximal end of the tibiæ, much exceeding the tibiæ in length, and fitting into a groove behind the first joint of the tarsi, which is much elongated and slightly swollen. In the female the hind tibiæ are longer than in the male, and the terminal spurs are shorter.

{ <i>talaus</i> , Linn. ♂	1.	{ <i>lemna</i> , Butl. ♂	2.
{ <i>peleus</i> , Linn. ♀.		{ <i>*berytus</i> , Hew. ♀.	
		<i>gentius</i> , Cram.....	3.

Confined to South America.

48. Genus CABIRUS.

Cabirus, Hübn. Verz. p. 102 (1816). Type, *julettus*, Stoll.

Brontiades, Hübn. Verz. p. 113 (1816). Type, *procas*, Cram.

Antennæ: club very slender, almost filiform, almost straight. Third joint of palpi short, conical, projecting slightly from the clothing of the second joint. Fore wing: inner margin slightly longer than outer margin; no costal fold in male; cell more than three-fifths the length of costa; vein 12 reaching costa almost opposite to end of cell; discocellulars almost erect, subequal; vein 5 slightly nearer to 6 than to 4; vein 3 well before end of cell, less than twice as far from 2 as from 4; vein 2 remote from 3, more than twice as far from end of cell as from base of wing. Hind wing: vein 7 well before end of cell; discocellulars erect, very faint; vein 5 barely traceable, nearer to 6 than to 4; vein 3 just before the end of the cell, nearer to 4 than to 2; vein 2 about equidistant from base of wing and end of cell. Hind tibiæ with only a single pair of spurs.

Male with a tuft of hairs affixed at the proximal end of the hind tibiæ.

This genus is closely allied to *Eatheus*.

<i>procas</i> , Cram.	1.
<i>julettus</i> , Stoll	2.

These two species are almost certainly sexes, *procas* being the male.

Confined to tropical South America.

49. Genus *GRYNOPSIS*, nov.

Type, *cœleste*, Westwood.

Antennæ rather long; club slender, hardly thicker than the shaft, the front edge of shaft fringed with short widely-set bristles. Third joint of palpi entirely concealed in the clothing of the second joint. Fore wing: outer margin almost half as long again as inner margin; male with a costal fold; vein 12 reaching costa before the end of cell; cell very long, considerably more than two-thirds the length of costa; discocellulars very oblique, subequal; vein 5 slightly nearer to 4 than to 6; the lower margin of the cell is bent up between veins 3 and 4, lying almost in the same straight line as the discocellulars; vein 3 well before the end of the cell; vein 2 remote from 3, as far from base of wing as 3 is from end of cell. Hind wing produced into a broad lobe, extending from vein 3 to the anal angle; vein 7 well before end of cell; discocellulars very faint; vein 5 barely traceable, much nearer to vein 4 than to 6; vein 3 from end of cell; vein 2 slightly nearer to end of cell than to base of wing. Hind tibiae only with terminal pair of spurs.

Male with the abdominal margin clothed with long hair-like scales.

cœleste, Westwood 1.

Inhabits tropical South America.

*Synopsis of Genera of HESPERIIDÆ.**Section B.*

a. Antennæ: tip acuminate.

*a*¹. Apex of fore wing not truncate.

*a*². Outer margin of both wings even or only slightly sinuate (dentate in *Erites*).

*a*³. Apex of fore wing not falcate.

*a*⁴. Third joint of palpi short and inconspicuous.

*a*⁵. Hind wing conspicuously elongated.

*a*⁶. Third joint of palpi sharply conical.

NEONOMA, g. n. Type, *platon*, Feld. (1)

*b*¹. Third joint of palpi bluntly conical.

*a*⁷. Male with a large patch of sexual scales on outer half of hind wing on upperside.

ARTEURODIA, Butl., Druce. Type, *tractipennis*, Butl., Dr. (2)

*b*². No sexual patch of scales on upperside of hind wing in male.

*a*⁸. Vein 2 of hind wing almost equidistant from base of wing and end of cell.

SORHISTA, Plötz. Type, *aristoteles*, Westw. (3)

*b*³. Vein 2, hind wing, twice as far from base of wing as from end of cell.

SATARUPA, Moore. Type, *gopala*, Moore. (4)

*b*⁵. Hind wing not at all or only slightly elongated.

*a*⁶. No costal fold on fore wing of male.

*a*⁷. Lower margin of cell of fore wing not strongly arched between origin of veins 2 and 3.

*a*⁸. No patch of sexual scales on upperside of hind wing in male.

*a*⁹. Hind wing: outer margin sinuate.

*a*¹⁰. Third joint of palpi porrected horizontally.

- a*¹¹. Vein 7 of hind wing as long as or longer than vein 2.
 DAIMIO, Murr. Type, *tethys*, Mén. (5)
- b*¹¹. Vein 7 of hind wing shorter than vein 2.
*a*¹². Outer margin of hind wing rather dentate, the deepest excision being at vein 5.
 ERITES, Mab. Type, *melania*, Mab. (6)
- b*¹². Outer margin of hind wing only slightly sinuate.
*a*¹³. Lower margin of cell of fore wing between veins 2 and 3 slightly arched.
 SARANGESIA, Moore. Type, *purendra*, Moore. (7)
- b*¹³. Lower margin of cell of fore wing between veins 2 and 3 straight.
 COLADENIA, Moore. Type, *indroni*, Moore. (8)
- b*¹⁰. Third joint of palpi suberect.
 CELENORRHINUS, Hübn. Type, *eligius*, Cram. (9)
- b*⁹. Hind wing: outer margin even.
*a*¹⁰. Vein 7 of hind wing hardly nearer to 6 than to 8.
 OMIXA, Mab. Type, *chrysomelæna*, Mab. (10)
- b*¹⁰. Vein 7 of hind wing considerably near to 6 than to 8.
*a*¹¹. Vein 3 of fore wing well before the end of cell.
*a*¹². Fore wing comparatively elongate.
 PARAMIUS, Hübn. Type, *scurra*, Hübn. (11)
- b*¹². Fore wing not elongate.
*a*¹³. Inner margin of fore wing considerably longer than outer margin.
 * PYTHONIDES, Hübn. Type, *cerialis*, Cram. (12)
 * NISONIADES, Hübn. Type, *bromius*, Stoll. (13)
- b*¹³. Inner and outer margins of fore wing subequal.
 * CYCLOSEMIA, Mab. Type, *hercynius*, Cram. (14)
- b*¹¹. Vein 3 of fore wing immediately before end of cell.
 ACILYODES, Hübn. Type, *fredericus*, Hübn. (15)
- b*⁸. Male with a large patch of sexual scales on upper-side of hind wing.
 TRICHOSEMEIA, Holl. Type, *sublivescens*, Holl. (16)
- b*⁷. Lower margin of cell of fore wing strongly arched between origins of veins 2 and 3.
 TAGIADES, Hübn. Type, *jupetius*, Cram. (17)
- b*⁴. Male with a costal fold.
*a*⁷. Costal fold large; apex of fore wing hardly produced, rounded.
 EAGRIS, Guenée. Type, *subulius*, Gray. (18)
- b*⁷. Costal fold slight; apex of fore wing more produced, acute.
 ANASTRUS, Hübn. Type, *obscurus*, Hübn. (19)
- b*⁴. Third joint of palpi porrect, conspicuous.
*a*⁵. Male with a costal fold, costa of fore wing angled at about its centre.
 CAMPTOPLEURA, Mab. Type, *theramenes*, Mab. (20)
- b*⁵. No costal fold in male, costa of fore wing not angled.
*a*⁶. Antennal club evenly curved.
 POTAMANAN, g. n. Type, *flavofasciata*, Hew. (21)

* The slight differences in shape of wing between the type species of *Pytho-*
nides and *Nisoniades* cannot be expressed in a key. Most probably these two
 genera, as well as *Cyclosemia*, are not really sufficiently distinct to be kept
 separate, and it would be more correct to include all three genera under *Niso-*
niades.

- b*⁶. Antennal club hooked.
*a*⁷. Vein 7 of hind wing nearer to 8 than to 6.
 MYCERIS, Mab. Type, *cærulea*, Mab. (22)
*b*⁷. Vein 7 of hind wing close to 6.
 PELLICIA, H.-S. Type, *dimidiata*, H.-S. (23)
*b*³. Apex of fore wing falcate. EANTIS, Boisd. Type, *busiris*, Cram. (24)
*b*². Outer margin of hind wing with a conspicuous projecting tooth at vein 7.
 ANTIGONUS, Hübn. Type, *nearchus*, Latr. (25)
*c*². Outer margin of hind wing very dentate.
 DARPA, Moore. Type, *hanria*, Moore. (26)
*b*¹. Apex of fore wing broadly truncate (except in *Tapena agni*).
*a*². Male with a tuft of hairs on hind tibiæ.
*a*³. Outer margin of hind wing not angled.
*a*⁴. Third joint of palpi inconspicuous.
 SPIONADES, Hübn. Type, *artemides*, Cram. (27)
*b*¹. Third joint of palpi conspicuous.
 ANISOCHORIA, Mab. Type, *polysticta*, Mab. (28)
 PROCAMPTA, Holl. Type, *rara*, Holl. (29)
*b*³. Outer margin of hind wing angled at veins 7 and 4.
 CTENOPTILUM, de N. Type, *vasava*, Moore. (30)
*c*³. Outer margin of hind wing angled at vein 3 (except *agni*).
 TAPENA, Moore. Type, *thwaitesi*, Moore. (31)
*b*². No tuft of hair on hind tibiæ of male.
 NETROCORYNE, Feld. Type, *repanda*, Feld. (32)
b. Antennæ, tip blunt.
*a*¹. Fore wing, apex truncate.
*a*². Male with a recumbent tuft of hair on fore coxæ.
 ODONOPTILUM, de N. Type, *sura*, Moore. (33)
*b*². Male with a radiating tuft of hair on fore coxæ.
 CARONA, Wallgr. Type, *pillaana*, Wallgr. (34)
*b*¹. Fore wing, apex acute.
*a*². Male with a radiating tuft of hair on fore coxæ.
 LEUCOCITONEA, Wallgr. Type, *levubu*, Wallgr. (35)
*b*². No tuft of hair on fore coxæ of male.
*a*³. Vein 2 of hind wing considerably nearer to end of cell than to base of wing.
 ABANTIS, Hopff. Type, *tettensis*, Hopff. (36)
*b*³. Vein 2 of hind wing hardly, if at all, nearer to end of cell than to base of wing.
*a*⁴. Vein 2 of fore wing considerably nearer to base of wing than to vein 3.
*a*⁵. Fore wing comparatively short and broad.
 PHOLISORA, Sc. Type, *catullus*, Fabr. (41)
*b*⁵. Fore wing comparatively elongate.
 HELIOPETES, Billb. Type, *arsalte*, Linn. (37)
*b*⁴. Vein 2 of fore wing hardly nearer to base than to vein 3.
*a*⁵. Outer margin of hind wing even.
*a*⁶. Antennal club straight.
 GOMALIA, Moore. Type, *albofasciata*, Moore. (39)
*b*⁶. Antennæ, club curved.
*a*⁷. Club robust.
 HESPERIA, Fabr. Type, *malve*, Linn. (38)
*b*⁷. Club comparatively slender.
 THANAOS, Boisd. Type, *tages*, Linn. (42)
*b*⁵. Outer margin of hind wing crenulated.
 CARCHARODUS, Hbn. Type, *lavatera*, Esp. (40)

1. Genus NEONOMA, nom. nov.

Conognathus, Felder, Wien. ent. Monat. vi. p. 181 (1862), præoc.
 Type, *platon*, Feld.

Antennæ: club rather robust, bent into a hook, terminal portion short. Palpi widely separated, porrect; third joint sharply conical.

Fore wing: outer margin longer than inner margin; no costal fold in male; cell less than two-thirds the length of costa; vein 12 reaching costa shortly before the end of cell; discocellulars suberect; vein 5 nearer 6 than 4; veinlet from lower discocellular; vein 3 well before end of cell, twice as far from 2 as from 4; vein 2 twice as far from end of cell as from base of wing. Hind wing much produced; vein 7 nearer to base of wing than to end of cell; discocellulars and vein 5 very faint; vein 3 immediately before end of cell; vein 2 three times as far from base of wing as from end of cell. Hind tibiæ with two pairs of spurs.

platon, Fabr.

Confined to tropical America.

The genus *Garga* of Mabille ('Le Naturaliste,' p. 216, 1889), described for the species *olena*, is apparently congeneric with *conognathus*, and *olena* is probably identical with *platon*.

2. Genus ARTEUROTIA.

Arteurotia, Butler & Druce, Cist. Ent. i. p. 112 (1872).

Type, *tractipennis*, Butler, Druce.

Antennæ: club rather robust, hooked, terminal portion short, less than half the length of club. Palpi porrect, widely separated; third joint obtusely conical. Fore wing: outer margin rather longer than inner margin; inner margin convex in its outer half; cell of fore wing less than two-thirds the length of costa; vein 12 reaching costa opposite end of cell; discocellulars suberect, the lower the longer; vein 3 shortly before end of cell, twice as far from 2 as from 4; vein 2 twice as far from end of cell as from base of wing. Hind wing elongate, outer margin straight; discocellulars distinct; vein 5 barely traceable; vein 3 immediately before end of cell; vein 2 hardly nearer to end of cell than to base of wing. Hind tibiæ with two pairs of spurs.

The male is without a costal fold, but is provided with a large silky patch of appressed scales, occupying the apical half of the hind wing on the upperside.

tractipennis, Butl., Druce.

Confined to tropical America.

3. Genus SOPHISTA.

Sophista, Plötz, Stett. ent. Zeit. xl. p. 176 (1879).

Type, *aristoteles*, Westw.

Antennæ: club moderate, bent into a hook, terminal portion very slender, less than half the length of remainder of club. Palpi porrect, widely separated; third joint obtusely conical. Fore wing: inner and outer margins subequal; cell of fore wing less than two-thirds the length of costa; vein 12 reaching costa almost opposite the end of cell; discocellulars suberect, the lower the longer; vein 3 shortly before the end of cell, more than twice as far from 2 as from 4; vein 2 more than twice as far from end of cell as from base of

wing. Hind wing rather elongate, outer margin slightly crenulate; discocellulars and vein 5 barely traceable; vein 3 immediately before the end of cell; vein 2 hardly nearer to the end of cell than to the base of wing. Hind tibiæ with two pairs of spurs.

There is no costal fold in the male of *aristoteles*, and a hardly perceptible one in the male of *calendris*.

* *aristoteles*, Westw. 1.

* *calendris*, Hew. 2.

Confined to tropical South America.

4. Genus SATARUPA.

Satarupa, Moore, P. Z. S. 1865, p. 780. Type, *gopala*, Moore.

Antennæ: club slender, bent into a hook, terminal portion long. Palpi porrect; third joint short, bluntly conical. Fore wing: outer margin strongly oblique, inner and outer margins subequal; cell less than two-thirds the length of costa; discocellulars inwardly oblique; vein 12 reaching costa before the end of cell; vein 3 shortly before end of cell, twice as far from 2 as from 4; vein 2 twice as far from end of cell as from base of wing. Hind wing much elongated, outer margin sinuate: vein 7 well before end of cell, twice as far from 8 as from 6; vein 3 immediately before end of cell; vein 2 twice as far from base of wing as from end of cell.

In the type species vein 5 of the hind wing is well developed, but it is barely traceable in the other species of the genus.

Hind tibiæ with two pairs of spurs. In the male the hind tibiæ are fringed along their upper edge, and the inner side of the tibiæ is clothed with long coarse recumbent hairs.

Closely allied to *Daimio*, from which it may be separated by the shape of the wings, especially of the hind wing, by the much greater length and more decided hook in the terminal portion of the antennal club, and by the scaling of the hind tibiæ of the male.

A synopsis of species is appended.

A large transparent spot in cell of fore wing..... *gopala*, Moore. 1.
No transparent spot in cell of fore wing.

Underside: base of hind wing brown; abdomen
banded with white, extremity brown *sambara*, Moore. 2.

Underside: base of hind wing white; abdomen
entirely white..... **dohertyi*, sp. n. 3.

Underside: base of hind wing white; abdomen
entirely black..... *affinis*, Druce. 4.

Entirely confined to Asia.

SATARUPA DOHERTYI, sp. nov.

Upperside dark brown. Fore wing with a series of seven transparent spots, three subapical and minute, the remainder in pairs in echelon to the submedian, there followed by an opaque white streak on inner margin. Hind wing with a broad white central band, outwardly bordered by a series of black spots; cilia chequered. Underside as above, but paler; the white band on hind wing of much greater extent, occupying the whole of the wing, with the

exception of a marginal band and a short costal streak; a series of black spots inside marginal band, and an isolated black spot at costal bifurcation. Abdomen above entirely white, beneath greyish white. Palpi dark above, grey below; legs grey.

Hab. Kumaon. Expanse 52 millim.

Closely allied to *S. sambara* and *S. affinis*. From the former it differs in its larger size (52 to 46 millim.), wholly white abdomen, and white base to hind wing on underside; from the latter it differs in the colour of the abdomen and in the lower spot of the central pair on the disk being nearer than the upper spot to the base of the wing, while in *affinis* the lower spot is nearer to the outer margin.

This is probably the species recorded from Kumaon by Mr. Doherty, after whom I have much pleasure in naming it.

5. Genus DAIMIO.

Daimio, Murray, Ent. Mon. Mag. vol. xi. p. 171 (1875).

Type, *tethys*, Mén.

Antennæ: club moderate, terminal crook bent at about right angles. Palpi porrect; third joint short, obtusely conical. Fore wing: outer margin slightly oblique; inner margin longer than outer margin; cell less than two-thirds the length of costa; vein 12 reaching costa before the end of cell; discocellulars suberect; vein 3 close to end of cell, more than twice as far from 2 as from 4; vein 2 twice as far from end of cell as from base of wing. Hind wing hardly elongated, outer margin sinuate; vein 7 shortly before end of cell, more than twice as far from 8 as from 6; discocellulars very faint, almost erect; vein 5 barely traceable; vein 3 shortly before end of cell; vein 2 twice as far from base of wing as from end of cell. Hind tibiæ with two pairs of spurs.

Male without costal fold, but with a tuft of hairs attached to the proximal end of hind tibiæ.

A synopsis of the species is given below.

Upperside of hind wing with no discal pale band.....	<i>tethys</i> , Mén.	1.
Upperside of hind wing with a discal pale band.		
With a large transparent spot in cell of fore wing.		
Cilia of hind wing white	{ <i>moorei</i> , Mab. <i>*felderi</i> , Butl.	2.
Cilia of hind wing dark.		
Band on underside of hind wing of large extent, reaching up to or beyond the costal nervure.		
Black spots on upperside of hind wing prominent	<i>bhagava</i> , Moore.	3.
Black spots on upperside of hind wing merged in the marginal band	<i>sinica</i> , Felder.	4.
Band on underside of hind wing much restricted, not extending beyond the upper angle of cell.	{ <i>celebica</i> , Felder. <i>*permena</i> , Hew.	5.
With a small transparent spot in cell of fore wing, sometimes absent.		
A large transparent spot below cell, below which are two opaque ones reaching to inner margin.		
Band on hind wing broad	<i>narada</i> , Moore.	6.
A large transparent spot below cell, with no opaque spots below it. Band on hind wing narrow ...	<i>phisara</i> , Moore.	
Confined to Asia.		

6. GENUS ERITES.

Erites, Mab. Bull. Soc. Ent. Belge, p. lxxi (1891).

Type, *melania*, Mab.

Very close to *Sarangesa*, from which it may be separated by the more dentate margin to the hind wing, and by the lower margin of the cell between veins 2 and 3 being straight.

djælælæ, Wlgr.

And one unidentified species.

A species closely allied to *motozi*, Wlgr., had been wrongly identified as *djælælæ* in the British Museum collection. Therefore all Mr. Butler's records of *djælælæ* really apply to this other species, which is apparently unnamed, and which is in the British Museum from Aden, Wadelai, Somali, and Abyssinia, the true *djælælæ* being represented only from British Caffraria, Cape of Good Hope, Transvaal, and Natal.

7. GENUS SARANGESA.

Sarangesa, Moore, Lep. Ceyl. i. p. 176 (1881).

Type, *purendra*, Moore.

Hyda, Mabille, Bull. Soc. Ent. Fr. (6) ix. p. clxxxiii (1889).

Type, *micacea*, Mab.

Sape, Mabille, Bull. Soc. Ent. Belge, p. lxvii (1891).

Type, *lucidella*, Mab.

Antennæ: club moderate, slightly recurved. Palpi porrect; third joint short, bluntly conical. Fore wing: inner margin longer than outer margin; cell less than two-thirds the length of costa; vein 12 reaching costa well before end of cell; discocellulars suberect, the lower the longer; vein 3 shortly before the end of cell; vein 2 nearly three times as far from end of cell as from base of wing; the lower margin of cell slightly arched between the origins of veins 2 and 3. Hind wing: outer margin slightly sinuate; vein 7 very shortly before end of cell; discocellulars and vein 5 barely traceable; vein 3 immediately before end of cell; vein 2 hardly nearer to end of cell than to base of wing. Hind tibiæ with two pairs of spurs in some species, with a tuft of hairs attached to the proximal end.

* <i>purendra</i> , Moore	..... 1.
<i>sati</i> , de Nicéville	..... 2.
<i>dasahara</i> , Moore	..... 3.
<i>albicitia</i> , Moore	..... 4.

{ <i>*grisea</i> , Hew.	..... 5.
<i>micacea</i> , Mab.	
<i>motozi</i> , Wlgr.	..... 6.
<i>kobela</i> , Trimen	..... 7.
<i>phyllophyla</i> , Trimen	..... 8.

And seven unidentified species.

The genus *Sape* has been erected by Mabille for *motozi* and its allies, but these species all fall into the genus *Sarangesa*. The species *micacea* is one of the many species described by Hewitson which have been redescribed by Mabille.

Asiatic and African.

8. Genus COLADENIA.

Coladenia, Moore, Lep. Ceyl. i. p. 180 (1881).Type, *indrani*, Moore.

Antennæ: club rather robust, recurved at tip. Palpi porrect; third joint short, obtusely conical. Fore wing: inner and outer margins subequal; cell less than two-thirds the length of costa; vein 12 reaching costa well before the end of cell; discocellulars suberect, the lower the longer; vein 3 shortly before the end of cell; vein 2 more than twice as far from end of cell as from base of wing. Hind wing: outer margin sinuate; vein 7 very close to end of cell; discocellulars and vein 5 barely traceable; vein 3 immediately before end of cell; vein 2 considerably nearer to end of cell than to base of wing. Hind tibiæ with two pairs of spurs, and in the male with a very long tuft of hair attached to the proximal end.

indrani, Moore 1.
tissa, Moore 2.
fatih, Kollar 3.

dan, Fabr. 4.
**kehelatha*, Hew. 5.

And one unidentified species.

Asiatic and African.

9. Genus CELÆNORRHINUS.

Celænorrhinus, Hübn. Verz. p. 106 (1816). Type, *eligius*, Cramer.*Gehlota*, Doherty, J. As. Soc. Beng. vol. lviii. pt. 2, p. 131 (1889).Type, *sumitra*, Moore.

Antennæ: club moderate, recurved at apex. Palpi suberect, terminal joint minute, second joint pressed close against the face. Fore wing: inner and outer margins subequal; cell less than two thirds the length of costa; vein 12 reaching costa almost opposite the end of cell; discocellulars suberect, the lower the longer; vein 3 shortly before the end of cell; vein 2 more than twice as far from end of cell as from base of wing. Hind wing: outer margin sinuate; vein 7 well before the end of cell, about twice as far from vein 8 as from 6; discocellulars faint, erect; vein 5 barely traceable; vein 3 immediately before the end of cell; vein 2 twice as far from base of wing as from end of cell. Hind tibiæ with two pairs of spurs, and in the male with a tuft of hairs attached near the proximal end.

eligius, Cramer 1.
**astrigera*, Butler 2.
**cynapes*, Hew. 3.
**badia*, Hew. 4.
**shema*, Hew. 5.
**stimula*, Hew. 6.
spilothyrus, Feld. 7.
**fusca*, Hampson 8.
chamunda, Moore 9.
ambarecsa, Moore 10.
sumitra, Moore 11.
putra, Moore 12.
{ leucocera, Kollar 13.
{ nunda, Moore.

pero, de Nicéville 14.
**palomaya*, Moore 15.
pyrrha, de Nicéville 16.
maculosa, Felder 17.
**biseriala*, Butler 18.
**maculata*, Hampson 19.
**meditrina*, Hewitson 20.
galeus, Fabr. 21.
**boadicea*, Hew. 22.
lugens, Mab. 23.
proxima, Mab. 24.
cavens, de Nicéville 25.
{ asmara, Butler 26.
{ consertus, de Nicéville.

<i>arca</i> , Plötz	27.	|	<i>*aurivittata</i> , Moore	29.
<i>dhanada</i> , Moore	28.	|	<i>mokezi</i> , Wligr.	30.

This is a cosmopolitan genus, species belonging to it occurring in Asia, Africa, and South America.

10. Genus ODINA.

Odina, Mabille, C. R. Ent. Soc. Belg. p. cxiii (1891).

Type, *chrysomelæna*, Mab.

Antennæ moderate, with a slender recurved crook. Palpi: third joint stout, porrect, rather conspicuous. Fore wing: inner margin longer than outer margin; cell less than two-thirds the length of costa; vein 5 nearer to 6 than to 4; vein 3 close to the end of cell; vein 2 from close to base of wing. Hind wing: outer margin even; vein 7 well before end of cell, only slightly nearer to 6 than to 8; vein 3 immediately before the end of cell; vein 2 nearer to base of wing than to end of cell. Hind tibiæ with two pairs of spurs. No secondary sexual characters on wings.

<i>hieroglyphica</i> , Butl.	1.
<i>chrysomelæna</i> , Mab.	
<i>*decoratus</i> , Hew.	2.

Confined to the Indian and Malay regions.

The type of this genus is one of the many well-known species recently redescribed by M. Mabille.

11. Genus PARAMIMUS.

Paramimus, Hübn. Verz. p. 115 (1816). Type, *scurra*, Hübn.

Antennæ: club slight, evenly curved. Palpi porrect, widely separated; third joint short, obtusely conical. Fore wing very elongated; inner margin very much longer than outer margin; cell of fore wing less than two-thirds the length of costa; vein 12 reaching costa almost opposite the end of cell; discocellulars erect, the lower the longer; vein 3 shortly before the end of cell, more than twice as far from 2 as from 4; vein 2 twice as far from end of cell as from base of wing. Hind wing: outer margin evenly rounded; vein 7 shortly before end of cell; discocellulars and vein 5 barely traceable; vein 3 shortly before end of cell; vein 2 only slightly nearer to end of cell than to base of wing. Hind tibiæ with two pairs of spurs, the upper pair minute. No costal fold in male, but a tuft of hairs attached to the proximal end of hind tibiæ.

<i>scurra</i> , Hübn.	1.	|	<i>stigma</i> , Feld.	4.
<i>hemes</i> , Cram.	2.	|	<i>*empolæus</i> , Westw.	5.
<i>*lucaria</i> , Hew.	3.	|		

And two unidentified species.

Confined to tropical America

12. Genus *PYTHONIDES*.

Pythonides, Hübn. Verz. p. 111 (1816). Type, *cerialis*, Cram.

Antennæ: club moderate, more or less curved, but not hooked. Palpi porrect; third joint short, bluntly conical. Fore wing: inner margin considerably longer than outer margin; costa in some species very strongly arched; outer margin slightly excavated just above outer angle; cell less than two-thirds the length of costa; vein 12 reaching costa before the end of cell; discocellulars erect, the lower the longer; vein 3 shortly before the end of cell; vein 2 hardly nearer to base of wing than to end of cell. Hind wing: outer margin evenly rounded; discocellulars and vein 5 barely traceable; vein 3 immediately before the end of cell; vein 2 twice as far from base of wing as from end of cell. No costal fold in male.

This genus can be divided into two groups on the characters of the hind tibiæ.

A. Two pairs of spurs on hind tibiæ, no tuft of hairs in male.

{ <i>cerialis</i> , Cram.	1.	{ <i>geometrina</i> , Feld.	7.
{ <i>orcus</i> , Fabr.		{ <i>hadina</i> , Butl.	8.
<i>orcus</i> , Hübn.	2.	{ <i>lancca</i> , Hew.	9.
<i>festivus</i> , Erich.	3.	{ <i>jovianus</i> , Hübn.	
* <i>luculca</i> , Hew.	4.	<i>satyrina</i> , Feld.	10.
<i>cronion</i> , Feld.	5.	<i>satyrus</i> , Feld.	11.
<i>scintillans</i> , Mab.	6.		

And three unidentified species.

B. Only terminal pair of spurs on hind tibiæ; male with a tuft of hairs affixed near proximal end of tibia.

* <i>lerina</i> , Hew.	1.	{ <i>jovianus</i> , Cram.	6.
<i>lagia</i> , Hew.	2.	{ <i>pseudojovianus</i> , West.	
<i>hercennius</i> , Hübn.	3.	{ <i>plurius</i> , H.-S.	
<i>gladiatus</i> , Butl.	4.	{ <i>fabricii</i> , Kirby	7.
* <i>lorus</i> , Hew.	5.	{ <i>jovianus</i> , Fabr.	
		<i>pyralina</i> , Mösch.	

And five unidentified species.

Confined to tropical America.

13. Genus *NISONIADES*.

Nisoniades, Hübn. Verz. p. 108 (1816). Type, *bromius*, Stoll.

Antennæ: club slender, evenly curved. Third joint of palpi minute, bluntly conical. Fore wing: costa straight, apex rather acute; inner margin considerably longer than outer margin; cell of fore wing less than two-thirds the length of costa; vein 12 reaching costa almost opposite the end of cell; discocellulars slightly inwardly oblique; vein 3 shortly before end of cell, more than three times as far from 2 as from 4; vein 2 more than twice as far from end of cell as from base of wing. Hind wing evenly rounded; vein 7 close to end of cell; discocellulars and vein 5 barely traceable; vein 3 immediately before end of cell; vein 2 slightly nearer to end of cell than to base of wing. Hind tibiæ fringed, and with two pairs of spurs.

This genus appears always to have an ocellated spot at the end of the cell in fore wing, a character which is more developed in *Cyclosæmia*.

bromius, Stoll.

And two unidentified species.

Confined to tropical South America.

14. Genus CYCLOSÆMIA.

Cyclosæmia, Mab. Pet. Nouv. ii. p. 222 (1878).

Type, *herennius*, Cramer.

Antennæ: club slender, evenly curved. Palpi porrect, third joint short, bluntly conical. Fore wing short and broad, costa slightly convex, apex rounded, outer margin very convex; inner and outer margins subequal; cell less than two thirds the length of costa; vein 12 reaching costa almost opposite the end of cell; discocellulars suberect, the lower the longer; vein 1 shortly before end of cell, more than twice as far from 2 as from 4; vein 2 less than twice as far from base of wing as from end of cell. Hind wing evenly rounded; vein 7 well before end of cell: discocellulars and vein 5 barely traceable; vein 3 shortly before the end of cell; vein 2 nearer to end of cell than to base of wing. Hind tibiæ with two pairs of spurs, and fringed with exceptionally long hairs.

<i>herennius</i> , Cram.	1.	<i>fissimacula</i> , Mab.	6.
<i>anastomosis</i> , Mab.	2.	<i>*fulisca</i> , Hew.	
<i>*lyrcæa</i> , Hew.	3.	<i>*carina</i> , Hew.	7.
<i>*clelea</i> , Hew.	4.	<i>albata</i> , Mab.	8.
<i>*lathæa</i> , Hew.	5.		

And two unidentified species.

Confined to tropical America.

15. Genus ACHLYODES.

Achlyodes, Hübner, Verz. 107 (1816). Type, *fredericus*, Hübner.

Antennæ: club moderate, slightly bent, tapering to a fine point. Palpi porrect; terminal joint minute. Fore wing: inner margin considerably longer than outer margin; no costal fold on fore wing; cell of fore wing less than two-thirds the length of costa; vein 12 reaching costa before the end of cell; discocellulars suberect, the lower the longer; vein 3 immediately before the end of cell; vein 2 less than twice as far from end of cell as from base of wing. Hind wing evenly rounded; vein 7 shortly before the end of cell: discocellulars and vein 5 faint; vein 3 from end of cell; vein 2 hardly nearer to end of cell than to base of wing. Hind tibiæ with two pairs of spurs.

fredericus, Hübner.

And four unnamed species.

Confined to tropical America.

16. Genus TRICHOSEMEIA.

Trichosemeia, Holland, Ann. Nat. Hist. (6) x. p. 294 (1892).

Type, *subolivescens*, Holland.

Antennæ: club moderate, evenly curved. Palpi porrect; third joint short, obtusely conical. Fore wing: inner margin longer than outer margin; cell less than two-thirds the length of costa; vein 12 reaching costa almost opposite end of cell; discocellulars slightly inwardly oblique, the lower the longer; vein 3 shortly before end of cell; vein 2 twice as far from end of cell as from base of wing. Hind wing evenly rounded; vein 7 very close to end of cell; discocellulars and vein 5 barely traceable; vein 2 immediately before end of cell; vein 3 considerably nearer to end of cell than to base of wing.

Male: no costal fold on fore wing, but with a large patch of appressed scales on the upperside of the hind wing, occupying the basal half of the wing from the costa to the middle of cell. The inner margin of the fore wing on the underside is also clothed with modified scales, presenting a silky appearance, and bearing a tuft of hairs attached to the submedian near the base. The hind tibiæ are flattened, and bear a tuft of hairs attached along their inner surface.

There are three species of this genus in the British Museum from W. Africa, two being unidentified, and the third being *pulvina*, Plötz. All these three species present slight modifications in the extent of the sexual patches on both wings, and in *pulvina* the hind tibiæ are only fringed, and exhibit no trace of the tibial tuft.

17. Genus TAGIADES. (Plates I. fig. 9; III. fig. 11.)

Tagiades, Hübner, Verz. p. 108 (1816). Type, *japetus* Cram.
Pterygospidea, Wallgr. Rhop. Caffr. p. 53 (1857).

Type, *flesus*, Fabr.

Antennæ: club slender, bent at about a right angle, terminal portion rather long. Palpi porrect, third joint minute. Fore wing: inner and outer margins subequal; cell less than two-thirds the length of costa; vein 12 reaching costa well before end of cell; discocellulars suberect, the lower the longer; vein 3 shortly before end of cell, three times as far from 2 as from 4; vein 2 almost twice as far from end of cell as from base of wing; lower margin of cell between origins of veins 2 and 3 strongly arched. Hind wing evenly rounded; vein 7 well before the end of cell, about twice as far from 8 as from 6; discocellulars and vein 5 very faint; vein 3 shortly before end of cell, twice as far from 2 as from 4; vein 2 considerably nearer to end of cell than to base of wing. Hind tibiæ fringed, and with two pairs of spurs.

It is quite impracticable to separate *Pterygospidea* from *Tagiades*, the only difference being that in *flesus* the outer margin of the fore wing is slightly excavated just above the outer angle, which is not the case in *japetus*; when, however, one tries to apply this

difference to other species it is found to be a vanishing quantity, and quite valueless as a generic character.

{ <i>flesus</i> , Fabr.	1.	* <i>clericus</i> , Butler	11.
{ <i>ophion</i> , Drury.		* <i>presbyter</i> , Butler ..	12.
<i>insularis</i> , Mab.	2.	<i>atticus</i> , Moore	13.
<i>ravi</i> , Moore	3.	<i>caligana</i> , Distant	14.
<i>khasiana</i> , Moore	4.	* <i>menaka</i> , Moore	15.
* <i>nectana</i> , Moore	5.	* <i>pinwilli</i> , Butler	16.
<i>japetus</i> , Cramer	6.	* <i>tabrica</i> , Hew.	17.
<i>alica</i> , Moore	7.	<i>pralaya</i> , Moore	18.
<i>obscurus</i> , Mab.	8.	<i>trichoneura</i> , Felder	19.
<i>distans</i> , Moore	9.	* <i>lavata</i> , Butler	20.
<i>gana</i> , Moore	10.		

And ten unidentified species. There is no doubt that several of the above species will be found to be identical when better series are brought together.

Asiatic and African.

18. GENUS EAGRIS.

Eagris, Guenée, in Maill. Réun. ii. Léop. p. 19 (1863).

Type, *sabadius*, Gray.

Palpi and neuration of fore wing as in *Tagiades*. Antennæ: club more robust and terminal portion shorter. Hind wing: vein 7 nearer to end of cell, and vein 2 nearer to base of wing.

Male with a costal fold on fore wing, and with a tuft of hair attached near the proximal end of hind tibiae.

<i>sabadius</i> , Gray	1.
<i>nottoana</i> , Wallgr.	2.

Confined to Africa.

19. GENUS ANASTRUS.

Anastrus, Hbn. Ex. Schmett. ii. 1822-26. Type, *obscurus*, Hbn.

Antennæ: club rather slender, very gradually thickened, bent into an even curve, tip acuminate. Palpi porrect; second joint as seen from above broad, rectangular, closely scaled; third joint minute, bluntly conical. Fore wing: inner and outer margin subequal; cell of fore wing less than two-thirds the length of costa; discocellulars suberect, the lower the longer; vein 3 well before the end of cell, three times as far from 2 as from 4; vein 2 more than twice as far from end of cell as from base of wing. Hind wing evenly rounded, slightly lobate; vein 7 shortly before end of cell; discocellulars and vein 5 faint; vein 3 immediately before end of cell; vein 2 twice as far from base of wing as from end of cell. Hind tibiae with two pairs of spurs.

Male with a very slight costal fold, and with a tuft of hair near the proximal end of hind tibiae.

<i>obscurus</i> , Hbn.	1.
<i>petius</i> , Mösch.	2.
<i>simplicia</i> , Mösch.	3.

And four unidentified species. *Corbulo*, Cram., has been considered

by authors identical with *obscurus*, Hübn., but the former is described and figured with two transparent apical spots, which are wanting in *obscurus*.

Confined to tropical America.

20. Genus CAMPTOPLEURA. (Plate III. fig. 12.)

Camptopleura, Mab. Pet. Nouv. ii. p. 166 (1877).

Type, *theramenes*, Mab.

Antennæ: club moderate, evenly curved, finely pointed. Palpi porrect, conspicuous; third joint stout, bluntly conical. Fore wing: male with a costal fold; costa angled just beyond the fold; cell less than two-thirds the length of costa; vein 12 reaching costa well before the end of cell; discocellulars inwardly oblique, the lower the longer; vein 3 very close to end of cell; vein 2 twice as far from end of cell as from base of wing. Hind wing evenly rounded; vein 7 shortly before end of cell; discocellulars and vein 5 barely traceable; vein 3 immediately before end of cell; vein 2 considerably nearer to end of cell than to base of wing. Hind tibiæ with two pairs of spurs, and in the male with a tuft of hairs attached near the proximal end of the hind tibiæ.

<i>theramenes</i> , Mab.	1.
<i>iphicrates</i> , Mab.	2.
<i>ebenus</i> , Mab.	3.
<i>thrasylbulus</i> , Fabr.	4.

And two unidentified species, one of which is Butler's female type of *Achlyodes nyctineme*, his male type of which is a female of the genus *Pellicia*.

Confined to tropical South America.

21. Genus POTAMANAX, nov.

Type, *flavofasciata*, Hew.

Antennæ: club rather robust, slightly flattened, evenly curved. Palpi porrect, divergent; third joint rather prominent. Fore wing: costa much arched, inner margin longer than outer margin; cell of fore wing less than two-thirds the length of costa; vein 12 reaching costa well before the end of cell; discocellulars erect, the lower the longer; vein 3 shortly before the end of cell; vein 2 hardly nearer to base of wing than to end of cell. Hind wing evenly rounded; vein 7 very close to end of cell; discocellulars erect and in the same straight line; vein 5 barely traceable; vein 3 immediately before end of cell; vein 2 more than twice as far from base of wing as from end of cell. Hind tibiæ with two pairs of spurs; no secondary sexual characters in male.

* <i>flavofasciata</i> , Hew. ...	1.
* <i>thestia</i> , Hew.	2.
* <i>latreia</i> , Hew.	3.
* <i>thoria</i> , Hew. ..	4.
<i>unifasciata</i> , Feld.	5.

Confined to tropical South America.

22. Genus MYCTERIS. (Plate III. fig. 13.)

Mycteris, Mab. Pet. Nouv. p. 114 (1877). Type, *cærulea*, Mab.

Antennæ: club moderate, hooked, terminal portion very short. Palpi very prominent, porrect; second and third joint taken together forming an elongated triangle; third joint rapidly tapering, tip blunt. Fore wing produced at apex; inner and outer margins subequal; cell of fore wing less than two-thirds the length of costa; vein 12 reaching costa almost opposite the end of cell; vein 3 shortly before the end of cell; vein 2 very close to base of wing; discocellulars suberect, the lower the longer. Hind wing evenly rounded; vein 7 nearer to 8 than to 6; discocellulars and vein 5 faint; vein 3 immediately before end of cell; vein 2 nearer to end of cell than to base of wing. Hind tibiæ with two pairs of spurs; on costal fold in male, but a short tuft of erectile hairs on upper-side of hind wing, attached along vein 8; at the bifurcation of vein 7 the veins at the fork are conspicuously dilated. The position of vein 7 seems quite unique among the Hesperiid genera.

cærulea, Mab. 1.

* *cambyses*, Hew. 2.

And two unnamed species.

Confined to tropical South America.

23. Genus PELLICIA.

Pellicia (Plötz, MS.), II.-S. Corresp.-Bl. zool.-min. Verein. Regens. xxiv. p. 159 (1870). Type, *dimidiata*, II.-S.

Antennæ: club moderate, bent into a hook, terminal portion slender. Palpi porrect; third joint short, obtusely conical. Fore wing: inner margin shorter than outer margin; no costal fold in male; cell less than two-thirds the length of costa; vein 12 reaching costa almost opposite the end of cell; discocellulars slightly inwardly oblique, the lower the longer; vein 3 close to end of cell; vein 2 twice as far from end of cell as from base of wing. Hind wing slightly elongated, outer margin inconspicuously sinuated; cell very short, extending less than half across the wing; vein 7 shortly before the end of cell; discocellulars and vein 5 faint; vein 3 from end of cell; vein 2 about equidistant from base of wing and from end of cell. Hind tibiæ fringed, and with two pairs of spurs. Male with a tuft of hairs on upperside of hind wing, attached along vein 8, and pointing downwards; at the bifurcation of vein 7 that vein and the upper margin of the cell are distinctly swollen for a short distance. This character of the swollen veins was pointed out to me by Mr. Salvin, to whom I am indebted for many valuable suggestions; it also obtains in the genus *Mycteris*, which, however, can be separated readily by the form of the palpi.

* *nyctineme*, Butl. 1.

* *castolus*, Hew. 2.

ithrana, Butl. 3.

And three unnamed species.

In spite of its very different colouring, *ithrana* appears to be quite

inseparable in structure from *nyctineme*, and the prehensores of both species are very similar.

Butler's male type of *nyctineme* is a female, his female type being an unidentified species of the genus *Camptopleura*; the true male of *nyctineme* does not differ appreciably in markings from the female, though it differs of course in the secondary sexual characters of the genus, and also slightly in shape of wings, as in other species of the genus.

Confined to tropical America.

24. Genus *EANTIS*. (Plates I. fig. 10; II. fig. 14; III. fig. 17.)

Eantis, Boisd. Spec. Gén. pl. 9 B (1836). Type, *busiris*, Cram.

Antennæ: club very slender, hardly thicker than shaft, evenly curved, terminating in a fine point. Palpi as in *Anastrus*. Fore wing: apex conspicuously falcate, outer margin very convex; inner margin slightly longer than outer margin; cell less than two-thirds the length of costa; vein 12 reaching costa at about half its length, considerably before the end of cell; middle discocellular erect, lower discocellular inwardly oblique, the lower the longer; vein 3 well before end of cell, less than twice as far from vein 2 as from 4; vein 2 nearer to base of wing than to end of cell. Hind wing much produced in median area, giving a very square appearance to the wing; cell short; vein 7 shortly before the end of cell; discocellulars barely traceable; vein 5 almost invisible; vein 3 shortly before the end of cell, slightly nearer to 4 than to 2; vein 2 nearer to end of cell than to base of wing. Hind tibiæ with two pairs of spurs, and in the male with a tuft of hairs attached near the proximal end.

In the male of *busiris* there is also a tuft of short hairs on a black silky patch of closely appressed scales at the extreme base of the costal margin on upperside of hind wing, and a precisely similar patch on underside of fore wing at origin of vein 1. This sexual character is not found in any other species of the genus.

{ <i>busiris</i> , Cram.	1.	{ <i>pallida</i> , Felder	5.
{ <i>sebalus</i> , Fabr.		{ <i>ozotes</i> , Butler.	
<i>thraso</i> , Hübn.	2.	<i>mexicana</i> , Felder	6.
<i>papinianus</i> , Poey	3.	<i>mithridates</i> , Fabr.	7.
<i>rossine</i> , Butler	4.		

And one unidentified species.

Confined to tropical America.

25. Genus *ANTIGONUS*.

Antigonus, Hübn. Verz. p. 108 (1816). Type, *nearchus*, Latr. *Chaloneura*, Feld. Wien. ent. Monat. vi. p. 185 (1862).

Type, *nearchus*, Latr.

Antennæ: club moderate, more or less bent into a curve, sometimes hooked. Palpi as in *Anastrus*. Fore wing: inner margin very concave; outer angle produced into a lobe; outer margin longer than inner margin; cell of fore wing less than two-thirds the length

of costa ; vein 12 terminating well before end of cell ; vein 10 remote from 9 ; veins 7, 8, 9 all from the same spot ; discocellulars suberect, the lower the longer ; vein 3 shortly before end of cell ; vein 2 close to base of wing. Hind wing produced into a tooth at end of vein 7 ; discocellulars and vein 5 barely traceable ; vein 3 immediately before end of cell ; vein 2 considerably nearer to end of cell than to base of wing. Hind tibiæ with two pairs of spurs, upper pair short.

Male with a costal fold, and with a tuft of hair attached near proximal end of hind tibiæ.

{	<i>nearchus</i> , Latr.	1.
{	<i>ustus</i> , Hübn.	
{	<i>hippatus</i> , Feld.	
{	<i>erosus</i> , Hübn.	2.
{	<i>westermanni</i> , Latr.	

Confined to tropical America.

26. GENUS DARPA.

Darpa, Moore, Proc. Zool. Soc. Lond. p. 781 (1865).

Type, *hanria*, Moore.

Antennæ : club moderate, rather elongate, with a short terminal crook ; tip sharp. Palpi porrect, third joint almost entirely concealed in clothing of second joint. Fore wing : outer margin very dentate ; inner margin longer than outer margin ; no costal fold in male ; cell of fore wing less than two-thirds the length of costa ; vein 12 terminating well before the end of cell ; discocellulars inwardly oblique, the lower much the longer ; vein 3 shortly before end of cell ; vein 2 very close to base of wing, quite three times as far from end of cell as from base of wing. Hind wing slightly elongate, outer margin strongly dentate ; vein 7 very close to end of cell ; discocellulars and vein 5 traceable, but not fully developed ; vein 3 immediately before end of cell ; vein 2 considerably nearer to end of cell than to base of wing. Hind tibiæ with two pairs of spurs. Hind tibiæ and femora with very long fringes.

hanria, Moore.

Confined to the Oriental region.

27. GENUS SPIONADES.

Spionades, Hübn. Verz. p. 114 (1816). Type, *artemides*, Cramer.

Antennæ : club moderate, crook short, bent at about a right angle ; tip acuminate. Palpi porrect, terminal joint almost entirely concealed in the clothing of the second joint. Fore wing : costa strongly arched, apex broadly truncate ; inner margin slightly longer than outer margin ; no costal fold in male ; cell of fore wing less than two-thirds the length of costa ; vein 12 reaching costa well before the end of cell ; discocellulars suberect, the lower the longer ; vein 3 very close to end of cell ; vein 2 more than twice as far from end of cell as from base of wing. Hind wing elongated ; vein 7 well before end of cell ; discocellulars and vein 5 barely traceable ;

vein 3 immediately before the end of cell; vein 2 considerably nearer to end of cell than to base of wing. Hind tibiæ with two pairs of long spurs, and in the male with a tuft of erect hairs attached near the proximal end.

In the female the fore wing is much more truncate, and the hind wing is broader, and therefore appears less elongated.

artemides, Cramer.

And an unidentified species. Allied to the Asiatic genus *Darpa*.

Habitat. Tropical South America.

28. Genus ANISOCHORIA. (Plates I. fig. 8; III. fig. 10.)

Anisochoria, Mab. Bull. Soc. Ent. Fr. (5) vi. p. 200 (1876).

Type, *polysticta*, Mab.

Antennæ rather short, less than half the length of fore wing; club robust, flattened, curved, terminating in a fine point. Palpi very conspicuous, porrect; second joint long, densely clothed; terminal joint short, obtusely conical. Fore wing: costa convex at middle, and slightly concave before apex; apex truncate and slightly excised; inner margin concave; cell less than two-thirds the length of costa; vein 12 reaching costa well before the end of cell; discocellulars slightly inwardly oblique, the lower the longer; vein 3 immediately before end of cell; vein 2 almost equidistant from 3 and from base of wing. Hind wing: outer margin evenly rounded; discocellulars very faint; vein 5 invisible; vein 3 immediately before end of cell; vein 2 nearer to end of cell than to base of wing. Hind tibiæ with two pairs of spurs.

Male with a slight costal fold.

<i>albiplaga</i> , Feld.	1.	|	<i>pedalioidina</i> , Butl.	4.
<i>palpalis</i> , Latr.	2.		<i>polysticta</i> , Mab.	
<i>lemur</i> , Mösch.	3.			
<i>sublimbata</i> , Mab.				

Confined to tropical South America.

29. Genus PROCAMPTA.

Procampta, Holland, Ann. Nat. Hist. (6) x. p. 293 (1892).

Type, *rara*, Holland.

"Allied to *Anisochoria*, Mab. Body slender. Palpi moderately long, slender, porrect, appressed, with the second article heavily clothed with hairs, and the terminal article slender. Fore wing rounded at base, convex on middle of costa, and slightly concave before apex; apex truncate, outer margin straight; outer angle not rounded, inner margin straight. Posterior wing subpyriform, and very convex on outer margin." (*Holland*, l. c.)

This genus agrees exactly with *Anisochoria* in shape of wings and form of palpi; the nervation I have had no opportunity to compare. The two genera are hardly likely to be identical, as one is found only in South America and the other in Africa.

30. Genus CTENOPTILUM.

Ctenoptilum, de Nicéville, Journ. Bomb. Nat. Hist. Soc. vol. v. p. 220 (1890). Type, *vasava*, Moore.

Antennæ: club rather robust, gradually thickened, recurved, finely pointed. Palpi very conspicuous, porrect; third joint fairly robust, long, slightly curving downwards, bluntly pointed. Fore wing: costa straight, apex broadly truncate; inner and outer margins subequal; cell almost two-thirds the length of costa; vein 12 reaching costa far before the end of cell; vein 8 usually given out beyond the end of cell—that is, veins 7 and 8 anastomose for a portion of their basal length (this is not an invariable character; the length of the anastomosis varies in different specimens, and occasionally, though very rarely, veins 7 and 8 are free for their entire length); discocellulars taken together forming a curve, the lower the longer; vein 3 shortly before the end of cell; vein 2 considerably nearer to vein 3 than to base of wing. Hind wing: outer margin with a tooth-like projection at vein 7 and a second more prominent one at vein 4; from this latter projection to the anal angle the margin is perfectly straight, thus giving the wing a very squared appearance. Neuration of hind wing much as in *Odontoptilum*. Hind tibiæ with two pairs of spurs, the upper pair minute. Male with a long tuft of hair attached to the proximal end of hind tibiæ.

vasava, Moore 1.
multiguttata, de Nicév. 2.

This genus is closely allied to *Caprona* and *Odontoptilum*; the sharply pointed antennæ, however, will at once separate it.

Confined to Asia.

31. Genus TAPENA.

Tapena, Moore, Lep. Ceyl. i. p. 181 (1881).

Type, *thwaitesi*, Moore.

Antennæ: club moderate, hooked, tip acuminate. Palpi conspicuous, porrect; third joint, short, obtusely conical. Fore wing: apex broadly truncate; inner and outer margins subequal; no costal fold in male; cell less than two-thirds the length of costa; vein 12 reaching costa before the end of cell; discocellulars suberect, the lower the longer; vein 3 shortly before the end of cell; vein 2 about twice as far from end of cell as from base of wing. Hind wing: outer margin sinuate, produced at vein 3, giving the wing a squared appearance; vein 7 well before the end of cell; discocellulars and vein 5 faint; vein 3 immediately before end of cell; vein 2 considerably nearer to end of cell than to base of wing. Hind tibiæ with two pairs of spurs. Male with a tuft of long hair-like scales attached along the inner side of the hind tibiæ.

The species *agni* differs from the type in the outer margins of both wings being even, but agrees with it in all other respects.

thwaitesi, Moore 1.
agni, de Nicéville 2.

This genus appears to be closely allied to the Australian genus *Netrocoryne*.

Confined to the Oriental region.

32. Genus NETROCORYNE.

Netrocoryne, Felder, Reise Novara, p. 507 (1867).

Type, *repanda*, Felder.

Antennæ: club rather robust, with a short terminal crook bent at about right angles, tip acuminate. Palpi porrect, rather conspicuous; second joint long, third joint short, bluntly pointed. Fore wing: apex truncate; outer margin sinuate, almost half as long again as inner margin; male with a costal fold; cell less than two-thirds the length of costa; vein 12 reaching costa almost opposite the end of cell; discocellulars inwardly oblique and in the same straight line, the lower considerably the longer; vein 3 well before the end of cell; vein 2 twice as far from end of cell as from base of wing. Hind wing: outer margin sinuate, produced at vein 3, giving a squared appearance to the wing; vein 7 shortly before end of cell; discocellulars and vein 5 traceable but not developed; vein 3 immediately before end of cell; vein 2 twice as far from base of wing as from end of cell. Hind tibiæ with a long fringe and with two pairs of spurs, the upper pair minute.

repanda, Felder.

According to the description and figure in Scott's 'Australian Lepidoptera' (vol. ii. pt. 2, 1891), there is a long tuft of hairs attached to the proximal end of the hind tibiæ, which are otherwise almost naked; this, however, is certainly not the case in some seven males in the collection of the British Museum, in which there is no tuft on the hind tibiæ, but they are clothed with a long fringe for their entire length; there is, however, a short tuft of hair attached to the proximal end of the hind femora.

This genus is confined to Australia.

33. Genus ODONTOPTILUM.

Odontoptilum, de Nicéville, Journ. Bomb. Nat. Hist. Soc. vol. v. p. 217 (1890).

Type, *sura*, Moore.

Antennæ less than half the length of costa; club rather robust, bent at about right angles, tip blunt. Palpi porrect; third joint short, obtusely conical. Fore wing: costa much arched; apex truncate; inner and outer margins subequal; cell less than two-thirds the length of costa; no costal fold in male; vein 12 reaching costa well before the end of cell; discocellulars inwardly oblique, in the same straight line, the lower the longer; vein 3 well before end of cell; vein 2 slightly nearer to base of wing than to vein 3. Hind wing: outer margin with a tooth-like projection between veins 6 and 7; vein 7 well before end of cell; discocellulars and vein 5 distinctly traceable but not fully developed; vein 3 immediately before end of

cell; vein 2 only slightly nearer to end of cell than to base of wing. Hind tibiæ with two pairs of spurs. Male with a dense recumbent tuft of hairs attached to the proximal end of the fore coxæ.

The species *pygela* differs from the type in having a second tooth-like projection at the extremity of vein 4.

{ <i>angulata</i> , Felder ...	1.
{ <i>sura</i> , Moore.	
<i>helias</i> , Felder	2.
* <i>pygela</i> , Hew.	3.
* <i>leptogramma</i> , Hew. .	4.

Helias, Felder, is a quite distinct species from *sura*, with which it has been confused. This genus has little in common with either *Achlyodes* or *Antigonus*, with which it has been associated.

Confined to Asia.

34. GENUS CAPRONA. (Plates I. fig. 12; III. fig. 15.)

Caprona, Wallgr. Rhop. Caffr. p. 51 (1857).

Type, *pillaana*, Wallgr.

Abaratha, Moore, Lep. Ceyl. vol. i. p. 181 (1881).

Type, *ransonnetii*, Moore.

Antennæ less than half the length of costa; club rather robust, abruptly thickened, and bent at about a right angle, tip blunt. Palpi porrect; second joint thickly scaled, third joint short; almost concealed. Fore wing: apex slightly truncate; cell less than two-thirds the length of costa; discocellulars inwardly oblique, the lower the longer, more oblique, and slightly arched; vein 3 shortly before end of cell; vein 2 only slightly nearer to base of the wing than to 3. Hind wing: outer margin sinuate, produced at vein 2, giving the wing a squared appearance; discocellulars and vein 5 barely traceable; vein 3 shortly before end of cell; vein 2 much further from base of wing than from end of cell. Hind tibiæ with two pairs of spurs. Male with a radiating tuft of hairs attached to fore coxæ.

The species *canopus* differs considerably from the type, the cell of fore wing being broader, the discocellulars less oblique, the apex very truncate, and the outer margin of hind wing much more irregular. The male also wants the tuft of hair on the fore coxæ. The Asiatic species, however, agree entirely with the type.

The genus *Abaratha* must sink as a synonym of *Caprona*, there being no perceptible structural differences between the types.

<i>pillaana</i> , Wallgr.	1.	<i>saraya</i> , Doherty	4.
<i>canopus</i> , Trim.	2.	<i>erosula</i> , Felder	5.
<i>ransonnetii</i> , Moore	3.	<i>syrichthus</i> , Felder	6.
{ * <i>potiphera</i> , Hew.			
{ <i>taylorii</i> , de Nicéy.			

And one unidentified species.

This genus is closely allied to *Odontoptilum*.

Asiatic and African.

35. Genus *LEUCOCHITONEA*.*Leucochitonea*, Wallgr. Rhop. Caffr. p. 52 (1857).Type, *levubu*, Wallgr.

Antennæ less than half the length of costa; club moderate, less robust than in *Abantis*, recurved, tip blunt. Palpi porrect; second joint short; third joint long, slender, bluntly pointed. Fore wing: inner and outer margins subequal; no costal fold in male; cell less than two-thirds the length of costa; vein 12 reaching costa well before the end of cell; discocellulars inwardly oblique, the lower the longer; vein 3 shortly before end of cell; vein 2 only slightly nearer to base of wing than to vein 3; lower margin of cell arched between veins 2 and 3. Hind wing not conspicuously elongated; outer margin slightly sinuate; vein 7 shortly before end of cell; discocellulars and vein 5 barely traceable; vein 3 immediately before end of cell; vein 2 considerably nearer to end of cell than to base of wing. Hind tibiæ with two pairs of spurs, the terminal pair considerably the longer. In the male there is a conspicuous tuft of radiating hairs affixed to the fore coxæ. Female with a dense tuft of closely set hairs at extremity of abdomen.

Trimen considers this genus identical with *Abantis*, and that the differences between the two genera pointed out by him are not sufficient for generic separation. The type is the only known species of the genus; the numerous New-World species put in the genus by various authors in no way belong to it.

levubu, Wallgr.

Confined to Africa.

36. Genus *ABANTIS*. (Plate III. fig. 16.)*Abantis*, Hopff. Verh. Akad. Wiss. Berl. p. 643 (1855).Type, *tettensis*, Hopff.*Sapæa*, Plötz, Stett. ent. Zeit. vol. xl. p. 177 (1879).Type, *bicolor*, Trim.

Antennæ short, less than half the length of costa; club robust, sharply recurved, tip blunt. Palpi porrect; third joint short, obtusely conical. Fore wing: inner and outer margins subequal; no costal fold in male; cell less than two-thirds the length of costa; vein 12 reaching costa well before the end of cell; discocellulars strongly inwardly oblique, the lower the longer; vein 3 immediately before end of cell; vein 2 slightly nearer to base of wing than to end of cell. Hind wing rather elongated, less conspicuously in the female; outer margin slightly excavated at vein 5; vein 7 shortly before end of cell; discocellulars outwardly oblique; vein 5 traceable but not fully developed; vein 3 immediately before end of cell; vein 2 nearer to end of cell than to base of wing. Hind tibiæ fringed and with two pairs of spurs, the upper pair minute.

<i>tettensis</i> , Hopff.	1.
<i>bicolor</i> , Trim.	2.
<i>paradisæa</i> , Butl.	3.

Trimen notes that the epiphysis on the fore tibiæ appears to be

occasionally wanting in *tettensis*. In the only two specimens (both males) in the British Museum the epiphysis is very small, if not absent, but it is impossible to say with certainty without "clearing" the fore leg.

Confined to Africa.

37. Genus HELIOPETES.

Heliopetes, Billb. Enum. Ins. p. 81 (1820). Type, *arsalte*, Linn.

Leucoscirtes, Scudd. Syst. Rev. p. 52 (1872).

Type, *ericetorum*, Boisd.

Antennæ: club moderate, blunt, slightly curved. Palpi porrect; second joint laxly clothed with long scales; third joint slender, bluntly conical. Fore wing: inner and outer margins subequal; cell of fore wing less than two-thirds the length of costa; vein 12 reaching costa well before the end of cell; discocellulars suberect, the lower the longer; vein 3 close to end of cell, more than three times as far from 2 as from 4; vein 2 three times as far from end of cell as from base of wing. Hind wing evenly rounded; vein 7 shortly before end of cell; discocellulars and vein 5 very faint; vein 3 immediately before end of cell; vein 2 nearer to base of wing than to end of cell.

Male with a costal fold and with a tuft of hairs attached near proximal end of hind tibiæ.

<i>domicella</i> , Erich.	1.	{	<i>figara</i> , Butler	7.
* <i>locutia</i> , Hew.	2.		<i>petrus</i> , Hübn.	8.
* <i>iaviana</i> , Hew.	3.		* <i>laginia</i> , Hew.	
<i>ericetorum</i> , Boisd.	4.		* <i>leucola</i> , Hew.	9.
<i>omirina</i> , Butl.	5.		<i>alama</i> , Reak.	10.
{ <i>arsalte</i> , Linn.	6.			
{ <i>niveus</i> , Cram.				

And three unidentified species.

Confined to tropical America.

38. Genus HESPERIA. (Plates I. fig. 11; III. fig. 19.)

Hesperia, Fabr. Ent. Syst. iii. vol. i. p. 258 (1793).

Type, *malva*, Linn.

Pyrgus, Hübn. Verz. p. 109 (1816). Type, *syrichtus*, Fabr.

Scelothrix, Ramb. Cat. Léop. Andal. i. p. 63 (1858).

Type, *carthami*, Hübn.

Syrichtus, Boisd. Icones, p. 230 (1832-33). Name sinks, being derived from species in genus.

Antennæ: club robust, arcuate, blunt at the tip, no terminal crook. Palpi suberect; second joint laxly clothed with longish scales; third joint slender, blunt, almost concealed in scaling of second joint. Fore wing: inner and outer margins subequal; cell less than two-thirds the length of costa; vein 12 reaching costa well before the end of cell; discocellulars suberect, the lower the longer; vein 3 shortly before end of cell, more than twice as far from 2 as from 4; vein 2 nearer base of wing than to end of cell. Hind wing usually evenly rounded, occasionally slightly crenulate; vein 7 very shortly before end of cell; discocellulars and vein 5 very faint; vein 3

immediately before end of cell ; vein 2 nearly equidistant from base of wing and end of cell. Hind tibiæ with two pairs of spurs.

This genus may be conveniently divided into groups on the male secondary sexual characters.

Section A.—Male without costal fold and without tuft of hairs on hind tibiæ.

<i>spio</i> , Linnæus	1.	<i>asterodia</i> , Trim.	7.
<i>sataspes</i> , Trimen	2.	<i>dromus</i> , Plötz	8.
{ <i>*zebra</i> , Butler	3.	<i>vindex</i> , Cram.	9.
<i>hellas</i> , de Nicéville.		<i>transvaaliæ</i> , Trim.	10.
{ <i>galba</i> , Fabr.	4.	<i>orbifer</i> , Latr.	11.
<i>*superna</i> , Moore.		{ <i>sao</i> , Bergstr.	12.
{ <i>*evanidus</i> , Butler	5.	<i>var. therapne</i> , Rbr.	
<i>*var. adenensis</i> , Butler.		<i>phlomidæ</i> , H.-S.	13.
<i>diomus</i> , Hopff.	6.	<i>*geron</i> , n. sp.	14.

The above group includes all the African, most of the Asiatic, and a few of the European species of the genus, and is not found in the New World.

Section B.—Male with a costal fold ; no tuft of hairs on the hind tibiæ, but with these tibiæ furnished with numerous short spines.

<i>cribrellum</i> , Evers.	15.
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Section C.—Male with a costal fold, but with no tuft of hairs on hind tibiæ.

<i>tessellum</i> , Hübn.	16.	{ <i>syrichtus</i> , Fabr.	22.
<i>gigas</i> , Brem.	17.	<i>oreus</i> , Cram.	
<i>nomas</i> , Led.	18.	{ <i>montivagus</i> , Reak.	23.
<i>poggei</i> , Led.	19.	<i>tessellata</i> , Soud.	
<i>proto</i> , Esp.	20.	{ <i>communis</i> , Grote.	
<i>americanus</i> , Blanch. ...	21.		

This group is confined to the New World, Europe, and Central Asia. There is a single male of *H. poggei* in the British Museum obtained by the writer at Quetta, Biluchistan ; but this is the only species which ranges into the Indian region. The specimen above referred to, though agreeing best with *poggei* on the upperside, appears nearer to *proto* in size and in the markings of the underside.

Section D.—Male with a costal fold and with a tuft of hairs on hind tibiæ.

<i>caskmirensis</i> , Moore	24.	{ <i>malvæ</i> , Linn.	31.
<i>cacaliæ</i> , Ramb.	25.	<i>ab. taras</i> , Meig.	
{ <i>serratulæ</i> , Ramb.	26.	<i>cynaræ</i> , Ramb.	32.
<i>var. cæcus</i> , Freyer.		{ <i>carthami</i> , Hübn.	33.
{ <i>alveus</i> , Hübn.	27.	<i>var. mæschleri</i> , H.-S.	
<i>var. onopordi</i> , Ramb.		<i>sida</i> , Esp.	34.
<i>var. carlineæ</i> , Ramb.		<i>antonia</i> , Spey.	35.
<i>var. cirsii</i> , Ramb.		<i>*sinicus</i> , Butl.	36.
<i>andromeda</i> , Wallgr.	28.	<i>maculatus</i> , Brem.	37.
{ <i>centaurææ</i> , Ramb.	29.	<i>*hocchoris</i> , Hew.	38.
<i>wyandot</i> , Edw.		<i>*fulcorittatus</i> , Butl.	39.
<i>hypoleucos</i> , Led.	30.	<i>tristignatus</i> , Mab.	40.
		<i>asychis</i> , Godt.	41.

This group occurs in Europe, Asia, and the New World.

All the species of this genus in which the male has a tuft of hairs on the hind tibiae also are provided with a "pair of scabbard-shaped scaly and hairy appendages, springing posteriorly from the breast at the base of the hind legs and about one third the length of the abdomen." These appendages will be found to be present in the males of all genera which are provided with tufts on the hind tibiae, and when the hind legs are drawn up the tuft is inserted between the appendage and the base of the abdomen.

This is a genus which needs splitting up; but a further knowledge of the earlier stages is necessary to do it satisfactorily.

HESPERIA GERON, sp. nov.

Upperside dark brown, almost black, spotted with white. Fore wing with a few grey scales at base of wing and along inner margin; a longitudinal white spot at base of cell, a broad square spot extending across the centre of cell, and a crescent-shaped spot closing cell; an oval spot on submedian; a submarginal row of eight white spots across wing beyond cell, the upper four coalescing, the first three large, the fourth small, the fifth triangular, equal in size to and immediately below the fourth, the sixth square, twice the size of the fifth, nearer the base of the wing, the seventh and eighth rectangular, almost equal in size, larger and nearer to the base of the wing than the sixth, the eighth placed immediately below the seventh, which is immediately below the crescent-shaped spot closing cell; a marginal row of eight white dots. Hind wing with a large rounded spot closing cell and three more spots coalescing with it and with each other extending towards the inner margin as far as the submedian; a small spot at base of cell and a marginal row of six white dots; inner margin clothed with long whitish hairs; all above spots white. Cilia of both wings chequered. Underside: fore wing as above, the costal margin and apex suffused with greenish white; hind wing: ground-colour ochraceous yellow; spots as above, but with an additional large spot in the marginal row, situated at the apex of the wing, and an extra spot in the discal row situated between the costal and subcostal nervures just above the subcostal bifurcation. Thorax and abdomen above black; last few segments of abdomen whitish. Palpi and abdomen beneath greyish white. Antennæ: shaft grey above, white beneath; club black, tip white.

Expanse 31 millim.

Nearest to *H. phlomidis*, H.-S., from which it differs in its smaller size, more extended white markings on the fore wing above, but chiefly in the colour and markings on the underside of the hind wing; in *phlomidis* the ground-colour is sap-green, in *geron* ochraceous yellow: in the former the large spot above the subcostal bifurcation unites with the discal row and also is broadly diffused above the costal nervure along the costa to the base; in the latter the large spot above the subcostal bifurcation is well separated from the spot at end of cell and does not extend above the costal nervure.

Described from six specimens collected by me at Quetta, Biluchistan, in June. There is also a single specimen in the collection

of the British Museum from Shahrud, Persia, labelled with the manuscript name of *geron*, Zeller, which name I have therefore adopted.

39. Genus GOMALIA.

Gomalia, Moore, P. Z. S. 1879, p. 114.

Type, *albofasciata*, Moore.

Antennæ and palpi as in *Hesperia*, except that the club of antennæ is slender and straight. Male with a costal fold. Differs from *Hesperia* in neuration only in vein 2 being slightly nearer the base of the fore wing. Hind tibiæ with two pairs of spurs; but with no tuft in the male.

{ *albofasciata*, Moore.
**titoralis*, Swinhoe.
elma, Trimen.

And one unnamed species. *Elma* is very close to *albofasciata*; but the series in the British Museum is not sufficient to decide whether they are identical.

Asiatic and African.

40. Genus CARCHARODUS.

[*Urbanus*, Hübner, Tentamen, p. 1 (1806).]

Type, *alceæ*, Esp.

Carcharodus, Hübner, Verz. p. 110 (1816).

Type, *lavateræ*, Esp.

Spilothyrus, Dup. Pap. France, Diurn. Suppl. p. 415 (1832).

Type, *alceæ*, Esp.

Antennæ: club rather robust, straight, with an extremely minute blunt crook. Palpi suberect; third joint rather prominent; second joint rather laxly scaled. Fore wing: inner and outer margins subequal; male with a costal fold; cell of fore wing less than two-thirds the length of costa; vein 12 reaching costa well before the end of cell; discocellulars suberect, the lower the longer; vein 3 shortly before the end of cell, twice as far from 2 as from 4; vein 2 twice as far from end of cell as from base of wing. Hind wing: outer margin crenulate; vein 7 more than twice as far from 8 as from 6; discocellulars and vein 5 faint; vein 3 well before end of cell; vein 2 distinctly nearer to base of wing than to end of cell. Hind tibiæ fringed, and with two pairs of spines, the upper pair minute.

This genus can be conveniently divided into two groups, in one of which the male has a tuft of hairs on the underside of the fore wing which is wanting in the other.

Section A.—No tuft of hairs on underside of fore wing in male.

lavateræ, Esp. 1.
{ *alceæ*, Esp. 2.
malvarum, Hoffm.
malvæ, Hübner.
{ *malvæ*, Hübner.

**alceæ*, var. *nostræ*, Zell. . 2 a.
**alceæ*, var. *australis*, Zell. 2 b.
**swinhoei*, sp. n. 3.

Section B.—Male with a tuft of hairs at base of fore wing on underside.

{ <i>altheæ</i> , Hübn. 4.	{ <i>altheæ</i> , var. <i>baticus</i> , Rbr. . 4a.
{ <i>gemina</i> , Led.	{ <i>altheæ</i> , var. <i>marrubii</i> , Rbr.
	<i>dravira</i> , Moore 5.

As the publication of the 'Tentamen' is more than doubtful, the generic name *Urbanus* is ignored.

Range. Europe, Asia, and Africa.

CARCHARODUS SWINHOEI, sp. nov.

Closely allied to *altheæ*, Esp., of which it is probably a local race. On the upperside it differs in its much more olive-green tone, being entirely without the red suffusion which is invariably present in *altheæ* and its two varieties *australis*, Zeller, and *nostras*, Zeller. On the fore wing the transparent spots are much more conspicuous, and on the hind wing the pale markings of the underside show through much more conspicuously. The dark markings of the fore wing also show up much less conspicuously, the whole being more uniform in colour. On the underside the colouring is considerably colder in tone, lacking the warm-brown suffusion of *altheæ* and its varieties, being irrorated instead with greenish grey.

Expanse 28 millim.

There are numerous specimens of this species in the British Museum from Biluchistan, Afghanistan, and Thundiani, N.W. India.

This species has hitherto been identified as *altheæ*, Ramb., var. *marrubii*, Ramb., which, however, belongs to a different section of the genus, in which the male is furnished with a tuft of hairs on the underside of the fore wing. The only other species of the genus occurring within Indian limits is *dravira*, Moore, which belongs to the *altheæ* group of the genus.

41. Genus PHOLISORA.

Pholisora, Scudder, Syst. Rev. Am. Butt. p. 51 (1872).

Type, *catullus*, Fabr.

Pholisora, Scudder, Butt. New England, p. 1514 (1889).

Antennæ: club very gradually thickened, bent at a little more than a right angle, tip blunt. Palpi porrect; second joint loosely scaled; third joint slender, rather conspicuous, bluntly conical. Fore wing: inner margin considerably longer than outer margin; cell less than two-thirds the length of fore wing; male with a costal fold; discocellulars suberect, the lower the longer; vein 3 immediately before the end of cell, many times further from 2 than from 4; vein 2 close to base of wing. Hind wing: vein 7 shortly before end of cell; discocellulars and vein 5 very faint; vein 3 immediately before the end of cell; vein 2 slightly nearer to base of wing than to end of cell. Hind tibiæ with two pairs of spurs.

<i>catullus</i> , Fabr. 1.	<i>velasquez</i> , Luc. 3.
<i>hayhurstii</i> , Edw. 2.	<i>chlorocephala</i> , Latr. 4.

And seven unidentified species.

Confined to America.

42. Genus *THANAOS*.

Thanaos, Boisd. Icones, 240 (1832-1833). Type, *tages*, Linn.

Antennæ: club moderate, more or less bent into a curve, bluntly pointed. Palpi porrect; second joint laxly clothed; third joint almost concealed, bluntly conical. Fore wing: inner margin longer than outer margin; male with a costal fold; cell of fore wing less than two-thirds the length of costa; discocellulars slightly inwardly oblique, the lower the longer; vein 3 shortly before the end of cell; vein 2 slightly nearer to base of wing than to end of cell. Hind wing: outer margin evenly rounded; vein 7 very close to end of cell; discocellulars and vein 5 faint; vein 3 immediately before end of cell; vein 2 almost equidistant from end of cell and base of wing. Hind tibiæ fringed and with two pairs of spines, the upper pair minute.

This genus as it stands at present includes many species which are certainly not congeneric. The above description is taken from the type species.

{ <i>tages</i> , Linn.	1.	{ <i>juvenalis</i> , Fabr.	7.
{ var. <i>cervantes</i> , Grasl.		{ <i>funeralis</i> , Sc.	8.
<i>lucilius</i> , Linn.	2.	{ <i>tristis</i> , Boisd.	9.
<i>persius</i> , Sc.	3.	<i>nævius</i> , Lint.	10.
<i>martialis</i> , Sc.	4.	<i>propertius</i> , Sc.	11.
<i>icelus</i> , Lint.	5.	{ <i>montana</i> , Brem.	12.
<i>brizo</i> , Boisd.	6.	{ <i>rusticanus</i> , Butl.	

Found in Europe and North America.

Subfamily III. PAMPHILINÆ.

Section A.

Antennæ very varied, never much hooked, and usually sharply pointed. In all the genera in which the tip of the antennæ is blunt the epiphysis on the fore tibia is wanting, excepting in one or two Australian forms.

Palpi: third joint usually short and inconspicuous, in some few genera long and slender; in these it is also always erect and never porrected horizontally in front of the face.

Fore wing: cell always less than two-thirds the length of costa; vein 5 slightly nearer to 4 than to 6, except in some aberrant Australian forms, in which it is slightly nearer to 6. Hind wing never with a conspicuous tail or tooth, though frequently more or less lobate; vein 5 never well developed.

Male never with a costal fold and only comparatively seldom with a discal stigma on the fore wing; frequently with glandular patches and tufts of hair on the wings; never with a tuft on the hind tibiæ.

The epiphysis on the fore tibiæ and the medial pair of spurs on the hind tibiæ are occasionally wanting.

Confined almost entirely to the Old World. As far as is known the species of this group rest with their wings raised over their backs, assuming that position immediately on settling.

Section B.

Antennæ very varied, but never hooked; the club either entirely without, or with a crook of varying length. Palpi: third joint in several genera long, slender, and curving over the vertex, a character never found in the *Hesperinæ*; in most of the other genera the third joint is minute, only very rarely being horizontally porrected, and when this is the case it is always stout.

Fore wing: cell invariably less than two-thirds the length of costa; vein 5 curves downwards at its base and consequently arises considerably nearer to 4 than to 6; the middle discocellular being considerably longer than the lower one, frequently more than twice as long as it. Hind wing usually rather elongate, but never with a conspicuous tail or tooth; vein 5 very rarely developed.

The male is frequently furnished with a discal stigma on the fore wing and never with a costal fold. Both pairs of spurs are invariably present on the hind tibiæ, and there is never a tuft of hair on the tibiæ in the male. The epiphysis on the fore tibiæ is invariably present.

This group is of world-wide distribution; the South-American forms, however, are comparatively few.

The majority of the species when sunning on a leaf depress their hind wings and elevate their fore wings, an attitude peculiar to this section. When in a complete state of repose both the wings are raised till they meet over their backs.

Section C.

Antennæ: club of varying robustness, always tapering to a fine point; occasionally hooked, in which case the terminal portion is always more than half the length of remainder of club. Palpi: second joint upturned, pressed closely against the face; third joint long, slender, naked, porrect, projecting horizontally in front of the face. Cell of fore wing ranging from just over one-half to just over two-thirds the length of costa. Hind wing more or less lobate; vein 5 of hind wing usually well developed; vein 5 of fore wing equidistant from 4 and 6 or slightly nearer to 6.

Male never with a costal fold on fore wing, but with various other secondary sexual characters, both on wings and legs.

As far as is known, all the species rest with their wings raised above their backs, frequently settling on the underside of leaves. They are remarkably crepuscular in their habits, being specially active only in the very early morning and at dusk. The section is confined entirely to the Old World.

The palpi of this section are very distinct, and readily separate them from nearly all other genera. The few genera of *Hesperinæ* (*Phanus*, *Entheus*, and allies) which have somewhat similar palpi differ in the entirely different form of antennæ, in the constant absence of vein 5 of the hind wing, and in some cases by the presence of the costal fold of the fore wing.

*Synopsis of Genera of PAMPHILINÆ.**Section A.*

- *a. Vein 5 of fore wing slightly nearer to 6 than to 4.
 a¹. Tip of antennæ blunt. MOTASINGHA, g. n. Type, *dirphia*, Hew. (1)
 b¹. Tip of antennæ acuminate.
 a². Club of antennæ arcuate, with no distinct terminal crook.
 TELESTO, Boisd. Type, *perronii*, Latr. (2)
 b². Club of antennæ with a distinct terminal crook.
 a³. Male with a discal stigma on fore wing.
 HESPERILLA, Hew. Type, *ornata*, Leach. (3)
 b³. No discal stigma on fore wing of male.
 a⁴. Antennal crook short.
 PATLASINGHA, g. n. Type, *phigalia*, Hew. (4)
 b⁴. Antennal crook long.
 TRAPEZITES, Hübn. Type, *symmonus*, Hübn. (5)
 b. Vein 5 of fore wing not nearer to 6 than to 4, usually distinctly nearer to 4 than to 6.
 a¹. Epiphysis on fore tibiæ present.
 a². Third joint of palpi long, slender, erect, curving over the vertex.
 a³. Vein 2 of hind wing considerably nearer to end of cell than to base of wing.
 a⁴. Vein 11 of fore wing not touching vein 12.
 a⁵. Vein 3 of fore wing well before the end of cell, and vein 3 of hind wing from before end of cell.
 a⁶. Vein 2 of fore wing nearer to base of wing than to end of cell.
 SUASTUS, Moore. Type, *gremius*, Fabr. (6)
 b⁶. Vein 2 of fore wing nearer to end of cell than to base of wing.
 ACLEROS, Mab. Type, *leucopyga*, Mab. (7)
 b⁵. Vein 3 of fore wing immediately before end of cell and vein 3 of hind wing from end of cell.
 IAMERIX, g. n. Type, *salsala*, Moore. (8)
 b⁴. Vein 11 of fore wing touching vein 12 for a portion of its length.
 KORUTHIALLOS, g. n. Type, *hector*, sp. n. (9)
 b³. Vein 2 of hind wing not nearer to end of cell than to base of wing.
 a⁴. Fore wing produced apically.
 OXYPALPUS, g. n. Type, *ignita*, Mab. (10)
 b⁴. Fore wing not produced apically.
 TEINORHINUS, g. n. Type, *watsoni*, Holl. (11)
 b². Terminal joint of palpi short and inconspicuous.
 a³. Vein 11 of fore wing free.
 a⁴. Veins 2 and 3 of hind wing not swollen in the male.
 a⁵. Male with an oval glandular patch on upperside of hind wing.
 OSMODES, g. n. Type, *laronia*, Hew. (12)
 b⁵. No glandular patch on upperside of hind wing in the male.
 a⁶. Costa of fore wing straight, slightly excised before apex.
 a⁷. Vein 3 of hind wing from before end of cell.
 BUTLERIA, Kirby. Type, *exornatus*, Feld. (13)
 b⁷. Vein 3 of hind wing from end of cell.
 AMBLYSCIRTES, Sc. Type, *vialis*, Edw. (14)
 b⁶. Costa of fore wing not excised before apex.
 a⁷. Vein 2 of fore wing considerably nearer to end of cell than to base of wing.
 a⁸. Vein 3 of hind wing from before end of cell.
 a⁹. No tuft of hairs on underside of fore wing in male.
 AEROMACHUS, de Nicé. Type, *stigmata*, Moore. (15)
 b⁹. Male with a tuft of hairs on underside of fore wing.
 SEBASTONYMA, g. n. Type, *dolopia*, Hew. (16)
 b⁸. Vein 3 of hind wing from end of cell.
 PEDESTES, g. n. Type, *masuriensis*, Moore. (17)

* This group is confined entirely to the Australian region.

- b*⁷. Vein 2 of fore wing not at all or only slightly nearer to end of cell than to base of wing.
- a*⁸. Small forms. Vein 7 of hind wing considerably nearer to 6 than to 8.
- a*⁹. No discal stigma on fore wing of male.
- a*¹⁰. No glandular streaks on upperside of fore wing in male, and cilia at anal angle of hind wing of normal length. Antennæ moderate.
- a*¹¹. Fore wing apically produced in male, outer margin very oblique, almost equal to inner margin.
- a*¹². Vein 3 of hind wing from before end of cell.
- a*¹³. Third joint of palpi horizontal.
- ARNETTA, g. n. Type, *atkinsoni*, Moore. (18)
- b*¹³. Third joint of palpi erect.
- HYAROTIS, Moore. Type, *adrastus*, Cram. (19)
- b*¹². Vein 3 of hind wing from end of cell.
- HYPOLEUCIS, Mab. Type, *tripuncta*, Mab. (20)
- b*¹¹. Fore wing not produced apically, outer margin hardly oblique, considerably shorter than inner margin.
- a*¹². Third joint of palpi erect.
- ISOTINON, Felder. Type, *lamprospilus*, Feld. (21)
- b*¹². Third joint of palpi horizontal.
- ISMA, Distant. Type, *obscura*, Dist. (22)
- b*¹⁰. No glandular streaks on upperside of fore wing in male, but cilia at anal angle of hind wing very much elongated. Antennæ exceptionally long.
- LOPHOIDES, g. n. Type, *iapis*, de Nicé. (23)
- c*¹⁰. Male with two pairs of glandular streaks along veins at base of fore wing on upperside.
- ZOGRAPHETUS, g. n. Type, *satwa*, de Nicé. (24)
- b*⁹. Male with a linear discal stigma on fore wing.
- MATAPA, Moore. Type, *aria*, Moore. (25)
- b*⁸. Large forms. Vein 7 of hind wing almost equidistant from 6 and 8.
- ERIONOTA, Mab. Type, *thrax*, Linn. (27)
- b*¹. Veins 2 and 3 of the hind wing much swollen in the male.
- a*⁵. No discal patch of specialized scales on upperside of fore wing in male. GANGARA, Moore. Type, *thyrsis*, Fabr. (28)
- b*⁵. Male with a discal patch of specialized scales on upperside of fore wing. PADUKA, Dist. Type, *tebadca*, Hew. (26)
- b*². Vein 11 of fore wing touching 12 for a portion of its length.
- SANCUS, de Nicé. Type, *subfasciatus*, Moore. (29)
- b*¹. No epiphysis on fore tibiae.
- a*². Antennæ moderate, more than half the length of costa.
- ARGOPTERON, g. n. Type, *aureipennis*, Blanch. (31)
- b*². Antennæ short, less than half the length of costa.
- a*³. Vein 11 of fore wing free.
- a*¹. Club of antennæ arcuate, tip acuminate.
- EUMESIA, Feld. Type, *semiargentea*, Feld. (30)
- b*¹. Club of antennæ straight, tip blunt.
- a*⁵. Vein 3 of fore wing well before end of cell, vein 2 nearer to base of wing than to end of cell.
- HETEROPTERUS, Dum. Type, *morpheus*, Pall. (32)
- b*⁵. Vein 3 of fore wing immediately before the end of cell, vein 2 nearer to end of cell than to base of wing.
- PAMPHILA, Fabr. Type, *palamon*, Pall. (33)
- b*³. Vein 11 of fore wing running into 12.
- CYCLOPIDES, Hübn. Type, *metis*, Linn. (34)

1. Genus MOTASINGHA, nov. (Plate III. fig. 23.)

Type, *dirphia*, Hew.

Antennæ: club very robust, bent at right angles with shaft, tip blunt. Palpi as in *Telesto*. Fore wing: inner margin slightly longer than outer margin; cell less than two-thirds the length of costa; vein 12 reaching costa shortly before the end of cell; upper discocellular short but distinct, outwardly oblique, middle and lower discocellulars inwardly oblique, the former very faint, the latter well developed; vein 5 slightly nearer to 6 than to 4; vein 3 well before the end of cell, about twice as far from 2 as from 4; vein 2 slightly nearer to end of cell than to base of wing. Hind wing slightly elongated, outer margin even; vein 7 far before the end of cell; discocellulars and vein 5 very faint; veins 1, 2, 3, and 4 all close together, vein 3 nearer to 4 than to 2; lower margin of cell angled slightly at vein 2 and more abruptly at vein 3. Hind tibiae with two pair of spurs. The female does not differ from the male in neuration.

Male with a linear discal stigma lying almost at right angles to the inner margin, extending from just beyond the lower angle of cell and just below vein 1.

{ **dirphia*, Hew.
 trimaculata, Tepper. ♂.
 quadriraculata, Tepper. ♀.

Confined to Australia.

2. Genus TELESTO. (Plates II. fig. 7; III. fig. 22.)

Telesto, Boisd. Voy. Astrol. 164 (1832). Type, *perronii*, Latr.

Antennæ: club rather robust, arcuate, with no terminal crook, tip acuminate. Palpi porrect; third joint short, obtusely conical. Fore wing rather pointed at apex; outer margin nearly straight; inner margin slightly longer than outer margin; cell less than two-thirds the length of costa; discocellulars inwardly oblique, subequal; vein 5 almost equidistant from 4 and 6, slightly nearer to 6; vein 3 well before end of cell, slightly further from 2 than from 4; vein 2 almost equidistant from end of cell and base of wing. Hind wing slightly elongated, outer margin even; vein 7 equidistant from 6 and 8; discocellulars faint; veins 2, 3, and 4 all close together; vein 3 nearer to 4 than to 2; lower margin of cell bent abruptly upwards at vein 3. Hind tibiae with two pairs of spurs.

Male with an oblique linear streak on fore wing, extending from just beyond the lower cell almost to the inner margin. The female does not differ perceptibly from the male in neuration.

{ *perronii*, Latr.
 kochii, Feld.
 doelea, Hew.

Confined to Australia.

The following Australian species belong to undescribed genera closely allied to *Telesto*:—

{	<i>*flammeata</i> , Butl.	♀.	|	<i>ismene</i> , Newm.
	<i>*eclipsis</i> , Butl.	♂.		<i>compacta</i> , Butl.
	<i>atromacula</i> , Miskin.	♂.		<i>*argenteo-ornatus</i> , Hew.
	<i>doubledayi</i> , Felder.			

There is absolutely no doubt that the *flammeata* of Butler is the female of the species described by him as *eclipsis*, though the former has been identified by Miskin as identical with *donnysa*, Hew., a quite distinct species belonging to a different though closely allied genus.

3. GENUS HESPERILLA.

Hesperilla, Hewitson, Hundred Hesp. p. 37 (1868).

Type, *ornata*, Leach.

Antennæ: club slender, at an angle with the shaft, usually bent to less than a right angle, tip acuminate. Palpi as in *Telesto*. Fore wing: inner margin longer than outer margin; cell less than two-thirds the length of costa; discocellulars inwardly oblique; vein 5 equidistant from 4 and 6 or slightly nearer to 6; vein 3 shortly before end of cell, about twice as far from 2 as from 4; vein 2 considerably nearer to end of cell than to base of wing. Hind wing rather elongate in the male, more rounded in the female; vein 7 well before the end of cell; discocellulars faint; vein 5 not traceable; veins 2, 3, 4 all close together from end of cell; vein 3 twice as far from 2 as from 4; lower margin of cell slightly angled at vein 2, abruptly at vein 3. Hind tibiæ with two pairs of spurs, upper pair minute.

Male with a linear discal stigma on the fore wing, lying almost at right angles to the inner margin, extending from just beyond the lower angle of cell as far as but not below vein 1.

<i>ornata</i> , Leach.....	1.
<i>pieta</i> , Leach.....	2.

Confined to Australia.

The following Australian species belong to undescribed genera closely allied to *Hesperilla*:—

<i>*donnysa</i> , Hew.
<i>*halyzia</i> , Hew.

4. GENUS PATLASINGHA, nov.

Type, *phigalia*, Hew.

Antennæ: club rather robust, with a short terminal crook; tip acuminate. Palpi as in *Telesto*. Fore wing: inner margin longer than outer margin; cell less than two-thirds the length of costa; vein 12 reaching costa before the end of cell; discocellulars slightly inwardly oblique; vein 5 practically equidistant from 4 and 6; vein 3 shortly before end of cell; vein 2 almost equidistant from base of wing and end of cell. Hind wing evenly rounded; vein 7 well before the end of cell; discocellulars and vein 5 very faint; veins

2, 3, and 4 all close together; vein 3 equidistant from 2 and 4; lower margin of cell abruptly bent upwards at vein 13. Hind tibiæ with two pairs of spurs.

No secondary sexual characters on wings of male.

* <i>phigalia</i> , Hew.	1.
* <i>petalia</i> , Hew.	2.
<i>lutea</i> , Trepper	3.
* <i>scepticalis</i> , Rosen.	4.
* <i>maheta</i> , Hew.	5.

Miskin has sunk *maheta* as a synonym of *iacchus*, Fabr., a quite distinct species belonging to a different genus; he has also sunk *utea* as a synonym of *petalia*, though the two species seem quite distinct; and he has further sunk *scepticalis* as a synonym of *compacta*, Butl., though it would be difficult to imagine two species more dissimilar. This genus is confined to Australia.

5. Genus TRAPEZITES.

Trapezites, Hübn. Verz. p. 112 (1816). Type, *symmonus*, Hübn.

Antennæ: club robust, elongate, with a long slender terminal crook. Palpi: second joint densely scaled, third joint minute. Fore wing: inner and outer margins subequal; cell less than two-thirds length of costa; vein 12 reaching costa before the end of cell; discocellars slightly inwardly oblique; vein 5 almost equidistant from 4 and 6; vein 3 well before the end of cell; vein 2 more than twice as far from end of cell as from base of wing. Hind wing: outer margin even; vein 7 well before end of cell, almost equidistant from 6 and 8; discocellars and vein 5 barely traceable; veins 2, 3, and 4 all close together, vein 3 almost equidistant from 2 and 4; lower margin of hind wing bent upwards at vein 2.

<i>symmonus</i> , Hübn.	1.
<i>iacchus</i> , Fabr.	2.
{ * <i>eliena</i> , Hew.	

Confined to Australia.

6. Genus SUASTUS.

Suastus, Moore, Lep. Ceyl. vol. i. p. 168 (1881).

Type, *gremius*, Fabr.

Antennæ: club moderate, elongate, with a short recurved crook; tip acuminate. Palpi erect; third joint long, slender, acuminate, curving backwards, reaching well above the vertex. Fore wing: inner and outer margins subequal; cell less than two-thirds the length of costa; vein 12 reaching costa well before the end of cell; discocellars subequal, the middle one a little the longer; vein 5 slightly nearer to vein 4 than to vein 6; vein 3 well before the end of cell, more than twice as far from 2 as from 4; vein 2 considerably nearer to base of wing than to end of cell, in female almost equidistant from end of cell and from base of wing. Hind wing: outer margin evenly rounded; vein 7 shortly before the end of cell; discocellars very faint; vein 5 not traceable; vein 3 shortly before end of cell; vein 2 considerably nearer to end of cell than to base

of wing; lower margin of cell not angled at veins 2 or 3. Hind tibiæ with two pairs of spurs.

{ <i>gremius</i> , Fabr.	1.	{ <i>swerga</i> , de Nicév.	4.
{ <i>divodasa</i> , Moore.		{ <i>möllerii</i> , Moore.	
{ <i>subgrisea</i> , Moore.		{ <i>minuta</i> , Moore	5.
<i>sala</i> , Hew.	2.	<i>bipunctus</i> , Swinh.	6.
<i>aditus</i> , Moore	3.		

The male of *gremius* has been redescribed by Moore as *subgrisea*. Confined to Southern Asia.

7. Genus ACLEROS.

Acleros, Mab. Lep. Mad. i. p. 347 (1887).

Type, *leucopyga*, Mab.

Closely allied to *Suastus*, with which it agrees in antennæ and palpi; it differs, however, considerably in neururation, vein 2 of the fore wing being nearer to the end of the cell than to the base of the wing. In the hind wing also the cell is longer, and vein 3 is well before the end of the cell instead of immediately before, as in *Suastus*.

No secondary sexual characters in the male.

Two unidentified species from West Africa.

8. Genus IAMBRIX, nov. (Plate III. fig. 25.)

Type, *salsala*, Moore.

Antennæ rather short; club moderate, gradually thickened, bent at rather more than a right angle; terminal portion short. Palpi: second joint densely clothed; third joint long, naked, slender, and erect. Wings short and broad; cell short; middle and lower discocellulars in the same straight line; vein 5 only slightly nearer to 4 than to 6; vein 3 very close to end of cell; vein 2 nearer to end of cell than to base of wing. Hind wing: vein 3 from end of cell; vein 7 from before end of cell; vein 5 wanting; discocellulars barely traceable. Hind tibiæ with two pairs of spurs.

No secondary sexual characters in male.

<i>salsala</i> , Moore	1.
* <i>stellifer</i> , Butler	2.
<i>sindu</i> , Felder	3.

Stellifer is quite distinct from *salsala*, with which it has been said to be synonymous. It is smaller and darker, and is entirely without the golden yellow scales on the upperside which are characteristic of *salsala*.

It is apparently confined to Malacca and Burmah, the specimens recorded from various parts of India being an unmarked and not uncommon variety of *salsala*.

Confined to Southern Asia.

9. Genus KORUTHAIALOS, nov. (Plate II. fig. 8.)

Type, *hector*, Watson.

Antennæ moderate, club hardly thicker than shaft. Palpi similar

to those of *Iambrix*, but the third joint is shorter. Shape of wings much as in *Iambrix*, but the costa of fore wing is more arched; vein 3 well before end of cell; vein 2 about equidistant from end of cell and base of wing; vein 5 about equidistant from 4 and 6; upper discocellular minute; vein 11 starting about halfway between base of wing and end of cell, almost exactly opposite vein 2, strongly deflected upwards soon after its origin, and touching vein 12 for a short distance. Hind wing: vein 3 immediately before end of cell; vein 2 about twice as far from base of wing as from end of cell; vein 7 shortly before end of cell; discocellulars rarely traceable: vein 5 wanting.

Male with a bristly tuft of hairs, springing from the base of the costa of the hind wing; there being also a distinct groove on the underside of the fore wing below the subcostal nervure to receive the tuft of hairs when the wings are closed.

This genus is closely allied to *Astictopterus*, *Iambrix*, and *Sancus*, in the last of which vein 11 also touches vein 12 for a short distance; the only other genus in which at all a similar character obtains is *Cyclopides*, but in this genus veins 11 and 12 altogether anastomose and run confluent for the rest of their course.

<i>hector</i> , sp. n.	1.
<i>xanites</i> , Butler	2.
<i>butleri</i> , Wood-Mason and de Nicéville ...	3.

And two unnamed species.

Confined to Southern Asia.

KORUTHAIALOS HECTOR, sp. nov.

Astictopterus xanites auctorum, nec Butler.

Above dark fuscous. Fore wing with an orange-red fascia crossing the wing at the end of the cell, not reaching either the costal or inner margins. Hind wing without markings. Wings beneath as above; the fascia on the fore wings being broader than above, and extending from close to the costa up to or slightly beyond the first median branch.

The fascia on the fore wing varies considerably in extent, especially on the upperside, but on the underside never reaches the submedian and is never diffused along the inner margin as in *xanites*.

Expanse 35 millim. (*xanites* expands 41 millim.).

Occurs throughout Burmah and Malacca, and also in Java.

This species has hitherto been confused with *xanites*, Butler; but the latter differs considerably on the underside of the fore wing, the orange fascia extending broadly as far as the outer angle and spreading along the outer half of the inner margin. *Xanites* appears to be a rare species, the only specimens I have seen being the type from Borneo and a single specimen from Malacca; this is apparently the species figured by Distant¹ as *gemmifer*, the gem-like spots of the true *gemmifer* (which is a *Kerana*) being omitted both from his figure and description. The species figured by Distant as *xanites* is the species here described as *hector*.

¹ Rhop. Mal. pl. xxxiv.

10. Genus *OXYPALPUS*, nov.

Type, *ignita*, Mab.

Antennæ: club moderate, elongate, with a short terminal crook. Palpi widely separated, third joint very long and slender, erect, curving over the vertex; tip acuminate. Fore wing: costa straight; apex slightly acute; inner and outer margins subequal; cell less than two-thirds the length of costa; vein 5 only slightly nearer to 4 than to 6; vein 3 immediately before end of cell; vein 2 almost equidistant from end of cell and base of wing. Hind wing evenly rounded; discocellulars and vein 5 not traceable; vein 7 close to end of cell. In the male vein 3 is given off far beyond the end of cell, there being a glandular thickening of the median just before the origin of vein 3; the glandular opening being on the upperside, where it is partially concealed by a tuft of hairs, attached to the upper margin of cell and directed outwards; vein 2 almost equidistant from base of wing and vein 3. In the female vein 3 of the hind wing is given out immediately before the end of the cell. Hind tibiæ with two pairs of spurs.

$\left\{ \begin{array}{l} \textit{ignita}, \text{Mab.} \quad \text{♂.} \\ \textit{gisgon}, \text{Mab.} \quad \text{♀.} \end{array} \right.$

And two unidentified species.

Confined to the African region.

11. Genus *TEINORHINUS*, nov.

Type, *watsoni*, Holland.

Antennæ: club slender; apical crook short; tip acuminate. Palpi widely separated; third joint very long and slender, erect, curving over the vertex. Fore wing short and broad; costa convex; outer margin convex; apex rounded; cell less than two-thirds length of costa; vein 12 reaching costa well before the end of cell; vein 2 almost equidistant from vein 3 and base of wing. Hind wing: outer margin even; vein 7 shortly before the end of cell; discocellulars and vein 5 barely traceable; vein 3 immediately before the end of cell; vein 2 almost equidistant from end of cell and base of wing. Hind tibiæ with two pairs of spurs.

No sexual characters on wings of male.

watsoni, Holland.

Confined to the African region.

12. Genus *OSMODES*, nov.

Type, *laronia*, Hew.

Antennæ: club elongate, with a short terminal crook. Palpi: second joint densely clothed, third joint minute. Fore wing slightly produced apically; inner and outer margins subequal, inner margin very convex in the male, straight in the female; cell less than two-thirds the length of costa; vein 5 slightly nearer to 4 than to 6;

vein 3 shortly before the end of cell; vein 2 almost equidistant from vein 3 and base of wing. Hind wing: outer margin even; vein 7 well before the end of cell; discocellulars and vein 5 very faint; vein 3 shortly before end of cell, about twice as far from 2 as from 4; vein 2 considerably nearer to end of cell than to base of wing. In the male there is a conspicuous oval glandular patch on the disk of the hind wing on the upperside, and there is also a tuft of hairs on the underside of the fore wing, attached to the basal half of the inner margin.

<i>laronia</i> , Hew.	1.
<i>thora</i> , Plötz	2.

And two unidentified species.

Confined to Africa.

13. Genus BUTLERIA. (Plate III. fig. 21.)

Butleria, Kirby, Syn. Cat. 624 (1871). Type, *valdivianus*, Phil.

Antennæ: club rather robust, arcuate, tip acuminate. Palpi porrect; second joint long, densely clothed; third joint slender, naked, obtusely conical. Fore wing; costa arched at base, then straight to apex, having the appearance of being slightly excised; inner margin longer than outer margin; cell less than two-thirds length of costa; vein 12 reaching costa before the end of cell; discocellulars suberect; vein 6 almost equidistant from 4 and 6; vein 3 well before the end of cell; vein 2 slightly nearer to base of wing than to end of cell. Hind wing; outer margin even; vein 7 well before end of cell; discocellulars and vein 5 faint; vein 3 shortly before end of cell; vein 2 twice as far from base of wing as from end of cell. Hind tibiæ with two pairs of spurs (except in *sotoi* and *philippii*).

— <i>dimidiatus</i> , Feld.	1.	— <i>cypselus</i> , Feld.	17.
* <i>caicus</i> , Hew.	2.	* <i>cœnides</i> , Hew.	18.
— <i>jelskyi</i> , Ersch	3.	— <i>bisscarguttatus</i> , Phil. ...	19.
— * <i>eryonas</i> , Hew.	4.	{ <i>valdivianus</i> , Phil.	20.
* <i>diraspes</i> , Hew.	5.	{ <i>exornatus</i> , Feld.	
* <i>oxaites</i> , Hew.	6.	{ <i>flavomaculatus</i> , Blanch. .	21.
* <i>evages</i> , Hew.	7.	{ <i>polyspilus</i> , Feld.	
— <i>hesperioides</i> , Feld.	8.	{ <i>paniscoides</i> , Blanch. ...	22.
— * <i>caracates</i> , Hew.	9.	{ * <i>canguenensis</i> , Reed.	
* <i>eburones</i> , Hew.	10.	* <i>vieina</i> , Reed.	23.
— <i>zhara</i> , Butl.	11.	{ * <i>fructicolens</i> , Butl.	24.
— <i>agathocles</i> , Feld.	12.	{ * var. <i>tractipennis</i> , Butl.	
* <i>arsines</i> , Hew.	13.	{ * var. <i>quadrinotatus</i> , Butl.	
— <i>polycrates</i> , Feld.	14.	{ * var. <i>pulcher</i> , Butl.	
— <i>hilina</i> , Butl.	15.	— * <i>philippii</i> , Butl.	25.
— <i>epiphaneus</i> , Feld.	16.	* <i>sotoi</i> , Reed.	26.

The last two species have only terminal spurs on the hind tibiæ. This is a very large genus, confined to the tropical regions of the New World; it includes forms of which the extremes are very dissimilar in coloration, but which grade one into another imperceptibly.

14. Genus AMBLYSCIRTES.

Amblyscirtes, Sc. Syst. Rev. p. 54 (1872). Type, *vialis*, Edw.

Stomyles, Sc. Syst. Rev. p. 55 (1872). Type, *textor*, Hübn.

Amblyscirtes, Sc. Butt. New England, vol. ii. p. 1575 (1889).

Antennæ rather short; club moderate, with a short terminal crook. Palpi: second joint densely scaled; third joint erect, short, bluntly conical. Fore wing: costa straight, slightly excised before apex; cell less than two-thirds the length of costa; vein 5 almost equidistant from 4 and 6; vein 3 shortly before end of cell; vein 2 slightly nearer to base of wing than to end of cell. Hind wing: outer margin even; vein 7 close to end of cell; discocellulars and vein 5 barely traceable; vein 3 from end of cell; vein 2 considerably nearer to end of cell than to base of wing. Hind tibiæ with two pairs of spurs.

vialis, Edw. 1.
cos, Edw. 2.

conus, Edw. 3.
textor, Hübn. 4.

I am unable to point out any structural differences between *vialis* and *textor*, the types of *Amblyscirtes* and *Stomyles* respectively. The generic characters of *Stomyles* have never been particularized.

Confined to North America.

15. Genus AEROMACHUS.

Aeromachus, de Nicéville, Journ. Bomb. Nat. Hist. Soc. v. p. 214 (1890).

Type, *stigmata*, Moore.

Antennæ: club rather robust, with a short terminal crook, tip acuminate. Palpi: second joint pressed close against face; third joint porrect, short, obtusely conical. Fore wing: inner margin longer than outer margin; cell less than two-thirds the length of costa; vein 5 almost equidistant from 4 and 6. In the male of the type species vein 3 is well before end of cell, vein 2 very close to 3, lower margin of cell bent upwards at vein 3. In the other species of the genus, vein 3 is immediately before the end of the cell, and vein 2 well before the end, but considerably nearer to it than to base of wing. Hind wing: outer margin even; vein 7 well before the end of cell, both veins at its bifurcation curved outwards in the male of the type species, but meeting at an acute angle in the other species of the genus, vein 7 also arising near the end of cell; discocellulars and vein 5 barely traceable; vein 3 immediately before the end of cell; vein 2 nearer to end of cell than to base of wing. Hind tibiæ with two pairs of spurs. Male in the type species with a short discal stigma on the upperside of the fore wing, extending from the origin of vein 3 and just below vein 1. There are no secondary sexual characters on the wings of the other species.

stigmata, Moore 1.
indistincta, Moore 2.

jhora, de Nicéville 3.
kali, de Nicéville 4.

Confined to Southern Asia.

16. Genus SEBASTONYMA, nov.

Type, *dolopia*, Hew.

Antennæ: club elongate, with a short apical crook, tip acuminate. Palpi: third joint minute, obtusely conical. Fore wing: inner margin longer than outer margin; cell less than two-thirds the length of costa; middle discocellular slightly longer than lower one; vein 5 slightly nearer to 4 than to 6; vein 3 immediately before end of cell; vein 2 close to end of cell, twice as far from base of wing as from end of cell. Hind wing not at all elongated, outer margin even; costa strongly arched at base; vein 7 shortly before end of cell; discocellulars faint, vein 5 not traceable; vein 3 immediately before end of cell; vein 2 considerably nearer to end of cell than to base of wing; lower margin of cell slightly angled at vein 2. Hind tibiæ naked and with two pairs of spurs.

Male with a tuft of hairs affixed at base of the inner margin on underside of fore wing and pointing upwards.

**dolopia*, Hew.

Confined to the Indian region.

17. Genus PEDESTES, nov.

Type, *masuriensis*, Moore.

Antennæ short; club robust, arcuate with no distinct terminal crook, tip acuminate. Palpi: third joint entirely concealed in the clothing of the second joint. Fore wing: inner margin longer than outer margin; cell less than two-thirds the length of costa; vein 12 reaching costa almost opposite end of cell; discocellulars suberect; vein 5 slightly nearer to 4 than to 6; vein 3 close to end of cell, rather more than twice as far from 2 as from 4; vein 2 nearer to end of cell than to base of wing. Hind wing not elongate; outer margin even, inconspicuously excavated at vein 2; vein 7 shortly before end of cell; discocellulars and vein 5 very faint; *vein 3 from end of cell*; vein 2 more than twice as far from base of wing as from end of cell. Hind tibiæ with two pairs of spurs. No secondary sexual characters on wings of male.

masuriensis, Moore ... 1.

pandita, de Nicéville ... 2.

This genus is confined to the Indian region.

18. Genus ARNETTA, nov.

Type, *atkinsoni*, Moore.

Antennæ: club slender, elongate, with a short terminal crook, tip acuminate. Palpi porrect; second joint densely scaled; third joint projecting horizontally in front of the face, short, obtusely conical. Fore wing rather produced apically, less so in female; inner and outer margins subequal; cell less than two-thirds the length of costa; vein 12 reaching costa almost opposite the end of cell; discocellulars suberect; vein 5 slightly nearer to 4 than to 6; vein 3 close to end

of cell, about twice as far from 2 as from 4; vein 2 almost equidistant from end of cell and from base of wing. Hind wing evenly rounded; vein 7 shortly before end of cell; discocellulars and vein 5 very indistinct; vein 3 shortly before end of cell, about twice as far from 2 as from 4; vein 2 considerably nearer to end of cell than to base of wing. Hind tibiæ with two pairs of spurs.

<i>atkinsoni</i> , Moore	.....	1.
* <i>subtestaceus</i> , Moore	...	2.
{ <i>vindhiana</i> , Moore	.....	3.
{ <i>nilgiriana</i> , Moore	.....	4.

In the males of *atkinsoni* and *subtestaceus* there is attached along the basal half of the inner margin of the fore wing a tuft of longish hairs which are turned up and spread out fanwise over the under-side of the hind wing.

"*Isoteinon*" *khasianus*, Moore, *modesta*, Moore, and *microstictum*, W.-M. and de Nicév., also probably belong to this genus, but there are no specimens available for examination.

Confined to the Oriental region.

19. Genus HYAROTIS.

Hyarotis, Moore, Lep. Ceyl. vol. i. p. 174 (1881).

Type, *adrastus*, Cramer.

Antennæ long; club moderate, elongate, with a short recurved crook, tip acuminate. Palpi erect; third joint obtusely conical, short, almost entirely concealed in the clothing of the second joint. Fore wing: inner and outer margins subequal; cell less than two-thirds the length of costa; vein 12 reaching costa before the end of cell; discocellulars inwardly oblique, the middle one the longer; vein 5 nearer to 4 than to 6; vein 3 very close to end of cell; vein 2 slightly nearer to base of wing than to end of cell. Hind wing rather elongate in male, more rounded in female, outer margin even; vein 7 well before the end of cell, only slightly nearer to 6 than to 8; discocellulars faint, outwardly concave; vein 5 not traceable; vein 3 immediately before end of cell; vein 2 considerably nearer to end of cell than to base of wing. Hind tibiæ with two pairs of spurs.

{	<i>adrastus</i> , Cram.
	<i>praba</i> , Moore.
	* <i>phonicis</i> , Hew.

Allied to *Isoteinon*.

Confined to Southern Asia.

20. Genus HYPOLEUCIS.

Hypoleucis, Mab. C. R. Soc. Ent. Belg. vol. xxxv. p. lxix (1891).

Type, *tripunctata*, Mab.

Antennæ: club slender, with a short terminal crook. Palpi: second joint densely scaled; third joint minute, obtusely conical. Fore wing: inner and outer margins subequal; cell less than two-thirds the length of costa; vein 5 slightly nearer to 4 than to 6; vein 3 immediately before end of cell; vein 2 almost equidistant from end

of cell and base of wing, slightly nearer to base of wing. Hind wing: outer margin even; vein 7 shortly before end of cell; vein 3 from end of cell; vein 2 more than twice as far from base of wing as from end of cell. Hind tibiæ with two pairs of spurs.

**ophiusa*, Hew.

The above diagnosis is taken from *ophiusa*, Hew., which Mabille includes in his genus *Hypoleucis*.

Confined to Africa.

21. Genus ISOTEINON.

Isoteinon, Felder, Wien. ent. Monat. vi. p. 30 (1862).

Type, *lamprospilus*, Felder.

Antennæ: club moderate, elongated, terminal crook short, tip acuminate. Palpi: second joint densely clothed with short scales; *third joint erect*, reaching well above the vertex of the head, slender, obtusely conical. Fore wing: inner margin considerably longer than outer margin; cell less than two-thirds the length of costa; discocellulars erect; vein 5 slightly nearer to 4 than to 6; vein 3 close to end of cell; vein 2 about equidistant from end of cell and base of wing in the male, considerably nearer to base of wing in the female. Hind wing narrow; vein 7 shortly before end of cell; discocellulars and vein 5 faint, but distinctly traceable; vein 3 immediately before end of cell. Hind tibiæ sparsely clothed with hairs and with two pairs of spurs. No secondary sexual characters on the wings.

{ *lamprospilus*, Feld.
{ *vitrea*, Murray.

Many Indian species have been put into this genus; none of those, however, which I have been able to examine belong to it, the direction of the third joint of the palpi alone readily distinguishing them. This genus appears to be allied to *Hyarotis*, Moore.

Habitat. China and Japan.

22. Genus ISMA.

Isma, Distant, Rhop. Malay. p. 386 (1886).

Type, *obscura*, Dist.

Antennæ: club slender, elongate, with a short terminal crook, tip acuminate. Palpi porrect; third joint slender, almost concealed, bluntly conical. Fore wing: inner margin longer than outer margin; cell less than two-thirds the length of costa; vein 12 reaching costa well before the end of cell; discocellulars suberect; vein 5 slightly nearer to 4 than to 6; vein 3 shortly before end of cell; vein 2 almost equidistant from vein 3 and base of wing. Hind wing: not at all elongated, outer margin even, inconspicuously excised as vein 2; vein 7 immediately before end of cell, very remote from base of wing; discocellulars faint, strongly outwardly oblique; vein 5 not traceable; vein 3 close to end of cell; vein 2 more than twice as far from base of wing as from end of cell; lower

margin of cell not angulated at vein 2 or 3. Hind tibiæ naked and with two pairs of spurs. No sexual characters on wings.

* <i>cephala</i> , Hew.	1.
* <i>bononia</i> , Hew.	2.

"*Hesperia*?" *cephaloides*, de Nicéville, also probably belongs to this genus.

There is no doubt that *cephala* and *bononia* are congeneric, and Distant puts the latter into his genus *Isma*, though, judging from the plate, the type species *obscura* appears to differ from *bononia* considerably.

Confined to Burma and Malaysia.

23. GENUS LOPHOIDES, nov.

Type, *iapis*, de Nicéville.

Antennæ long; club slender, elongated, with a short terminal crook. Fore wing produced at apex, inner margin slightly longer than outer margin; cell less than two-thirds length of costa; vein 12 reaching costa well before the end of cell; discocellulars suberect; vein 5 slightly nearer to 4 than to 6; vein 3 shortly before the end of cell; vein 2 from close to base of wing (in the female vein 2 will probably be found to be further removed from the base). Hind wing: outer margin evenly rounded; vein 7 well before the end of cell; discocellulars faint; vein 5 not traceable; vein 3 shortly before end of cell; vein 2 nearer to end of cell than to base of wing. Hind tibiæ naked and with two pairs of spurs.

Male with an oval glandular patch at extreme base of fore wing, more conspicuous on the underside, with a tuft of longish hairs, directed upwards, affixed to the inner margin of the fore wing on the underside, with a similar tuft of laxly set hairs on the upper-side of the hind wing near the base of the costal margin, and with a fringe of long hairs at the anal angle of hind wing.

iapis, de N.

Habitat. Burma.

24. GENUS ZOGRAPHETUS, nov.

Type, *satwa*, de Nicéville.

Antennæ: club elongate, with a short apical crook, tip acuminate. Palpi: third joint minute, obtusely conical. Fore wing: apically rather produced; inner margin longer than outer margin; cell less than two-thirds the length of costa; vein 12 reaching costa before the end of cell; discocellulars suberect, the middle one slightly longer than the lower; vein 5 slightly nearer to 4 than to 6; vein 3 shortly before end of cell; vein 2 very close to base of wing (in the female vein 2 is about equidistant from base of wing and vein 3). Hind wing: outer margin slightly excavated at vein 2; vein 7 well before the end of cell, arising at an acute angle; vein 3 immediately before end of cell; vein 2 very close to vein 3, more than twice as far from base of wing as from end of cell: lower

margin of cell slightly angled at vein 2. Hind tibiæ with two pairs of spurs.

Male with two pairs of linear glandular streaks on the upperside of the fore wing, the upper pair on either side of vein 2 at its bifurcation, the lower two immediately beneath these on either side of vein 1. These glandular streaks are most developed in *satwa*, and least in *ogygia*.

<i>satwa</i> , de Nicéville	1.
<i>flavipennis</i> , de Nicéville	2.
* <i>ogygia</i> , Hewitson	3.

Confined to Southern Asia.

25. Genus MATAPA.

Matapa, Moore, Lep. Ceyl. vol. i. p. 163 (1881).

Type, *aria*, Moore.

Antennæ: club robust, elongate, terminal crook moderate. Palpi: second joint very densely scaled, third joint entirely concealed. Fore wing: rather produced at apex, inner and outer margins subequal; cell less than two-thirds length of costa; discocellulars strongly inwardly oblique; vein 5 only slightly nearer to 4 than to 6; vein 3 well before the end of cell, slightly nearer to 4 than to 2; vein 2 slightly nearer to base of wing than to end of cell; lower margin of cell angled at vein 3. Hind wing: outer margin even, slightly excised between veins 3 and 1 \bar{b} ; vein 7 well before the end of cell; discocellulars faint; vein 5 obsolete; vein 3 from end of cell; vein 2 more than twice as far from base of wing as from end of cell. Hind tibiæ fringed and with two pairs of spurs.

Male with an oblique linear glandular streak on the upperside of the fore wing, extending from vein 3 as far as vein 1.

<i>aria</i> , Moore	1.
<i>drua</i> , Moore	2.
<i>sasivarna</i> , Moore	3.
<i>shalgrama</i> , de Nicéville	4.

Confined to Southern Asia.

26. Genus PADUKA.

Paduka, Distant, Rhop. Mal. p. 375 (1886).

Type, *lebadea*, Hewitson (= *glandulosa*, Dist.).

Antennæ and palpi much as in *Erionota*. Fore wing: cell less than two-thirds length of costa; inner margin longer than outer margin; vein 12 terminating before end of cell; vein 7 before end of cell; upper discocellular short but distinct, almost parallel with the costa; middle and lower discocellulars almost erect in the same straight line, the middle the longer; vein 3 four times as far from base of wing as from end of cell, and more than twice as far from 2 as from 4; vein 2 almost equidistant from 3, and base of wing rather nearer the latter. Hind wing: outer margin sinuated; vein 7 almost equidistant from 8 and 6; discocellulars outwardly

oblique; radial wanting; median bent upwards at vein 2; vein 3 equidistant from 2 and 4; vein 2 close to end of cell, very remote from base of wing. Hind tibiæ with two pairs of spurs, the upper pair minute.

The above description is from a female of the type species. In the male vein 3 of the fore wing is further from the end of the cell, and there are the following secondary sexual characters:—a discal patch of silky hairs on the upperside of fore wing, a long tuft of hairs on underside of fore wing at base of submedian, and two glandular streaks situated on veins 2 and 3 of the hind wing.

Closely allied to *Gangara*.

{ **lehadva*, Hew.
glandulosa, Dist.
subfasciata, Moore.

Confined to Southern Asia.

27. GENUS ERIONOTA.

Erionota, Mab. Ann. Soc. Ent. Belg. vol. xxi. p. 34 (1878).

Type, *thrax*, Linn.

Antennæ not hooked; club moderate, gradually thickened, terminal portion bent at more than a right angle, and gradually tapering to a point. Palpi: second joint pressed close against the face, densely scaled; the third joint entirely concealed. Fore wing: inner and outer margins subequal; cell considerably less than two-thirds length of costa; vein 12 reaching costa before the end of cell; upper angle of cell acute; upper discocellular minute, middle and lower discocellulars slightly oblique, the middle one the longer; vein 5 nearer to 4 than to 6; vein 3 hardly twice as far from 2 as from 4; vein 2 almost equidistant from vein 3 and base of wing. Hind wing: outer margin sinuate, slightly lobed towards anal angle; vein 7 nearly equidistant from 6 and 8; middle discocellular erect, lower strongly outwardly oblique; vein 5 wanting; vein 3 just before end of cell; vein 2 more than twice as far from base of wing as from end of cell. Hind tibiæ fringed, but not densely, and with two pairs of spurs.

Closely allied to *Gangara*.

thrax, Linn. 1.
 { *acroleuca*, Wood-Mason, de Nicéville. 2.
hiraco, Moore.
lara, Swinhoe.

28. GENUS GANGARA.

Gangara, Moore, Lep. Ceyl. vol. i. p. 164 (1881).

Type, *thyrsis*, Fabr.

Antennæ and palpi as in *Erionota*. Fore wing: inner margin longer than outer margin; cell not much more than half the length of costa; vein 12 terminating before the end of cell; outer end of cell oval; upper discocellular very short, middle and lower discocellulars almost erect and in the same straight line, the

middle one the longer; vein 3 more than twice as far from 2 as from 4; vein 2 considerably nearer to base of wing than to vein 3, and about twice as far from end of cell as from base of wing. Hind wing: outer margin sinuate; middle discocellular very faint, almost erect, lower well developed, outwardly oblique; vein 5 wanting; vein 7 considerably nearer to 6 than to 8; vein 3 just before end of cell; vein 2 nearer to base of wing than to vein 3. Hind tibiæ slightly fringed and with two pairs of spurs.

In the male there is on the fore wing a linear glandular streak lying above the central portion of vein 1, and a second double streak lying on both sides of the basal half of vein 2; on the hind wing the basal half of veins 2 and 3 and the portion of the lower margin of the cell lying between them are much swollen. On the underside of the fore wing also there is a patch of erect hairs extending from vein 1 to the inner margin, and the hind wing above is thickly clothed from its base with long hairs which conceal the swollen veins. Abdomen conspicuously tufted above.

{ *thyrsis*, Fabr. 1.
 { *pandia*, Moore.

Confined to Southern Asia.

29. Genus SANCUS. (Plate II. fig. 9.)

Sancus, de Nicéville, Journ. Nat. Hist. Soc. Bombay, vol. vi. no. 3, p. 395 (1891). Type, *subfasciatus*, Moore.

? *Psolos*, Mabilie, MS.

? Type, *pulligo*, Mabilie.

Antennæ: club elongate, tip acuminate, recurved. Palpi: second joint densely scaled, third joint almost concealed. Palpi and antennæ as in *Kerana*. Fore wing much elongated. "Male with a curious impressed elongated oval brand placed so immediately behind as to touch the median nervure." Vein 11 of the fore wing strongly deflected upwards soon after its origin and touching the costal nervure for a short distance; vein 5 nearer to 4 than to 6; middle discocellular longer than lower one.

Allied to *Kerana*, *Astictopterus*, *Iambria*, and *Koruthaiolos*. From the three former it may be distinguished by the confluence of veins 11 and 12, and from the latter by the differently formed palpi.

{ *pulligo*, Mabilie 1.
 { *subfasciatus*, Moore.
 { *ulunda*, Plötz.
 { *fuscula*, Snellen 2.
 { *celunda*, Stand.

There has been some doubt about the correct synonymy of the species of this genus, chiefly owing to Heer Snellen having stated that the characteristic "male mark" of the genus is wanting in *fuscula*. The courtesy of the Hon. Walter Rothschild has, however, enabled me to examine four males and one female of undoubted *fuscula*, collected in S.W. Celebes by Mr. Doherty, and I find that the males have the "male mark" as in *pulligo*, though it is much

less conspicuous, being hardly visible on the upperside, but appearing below as a pale oval streak. This inconspicuous nature of the male mark in *fuscula* would doubtless account for its being overlooked by Heer Snellen, especially if the specimens he examined were at all worn. This species can be separated from *pulligo* by having the underside of the hind wing entirely unmarked, and by the beautiful plum-like bloom of the upperside. This last character is only apparent in fresh specimens, those in the Hewitson collection in the British Museum having faded to a dull brown. *Fuscula* seems to be confined to Celebes, while *pulligo* ranges from Assam throughout Burma, Malacca, Java, Borneo, Sulu, and Palawan, and also occurs in Southern India.

30. Genus EUMESIA.

Eumesia, Felder, Reise Novara, p. 504 (1867).

Type, *semiargentea*, Feld.

Antennæ short, less than half the length of costa; club stout, arcuate, tip acuminate. Palpi porrect; third joint very slender, bluntly pointed. Fore wing: inner margin considerably longer than outer margin; cell less than two-thirds the length of costa; vein 12 reaching costa almost opposite the end of cell; vein 5 slightly nearer to 4 than to 6; vein 3 well before end of cell, much curved in its course; vein 3 slightly nearer to base of wing than to end of cell. Hind wing: outer margin evenly rounded; vein 7 shortly before end of cell; discocellulars and vein 5 barely traceable; vein 3 immediately before end of cell; vein 3 nearer to end of cell than to base of wing. No epiphysis on fore tibiæ. Hind tibiæ with terminal pair of spurs only, but beset with numerous short spines on the lower surface.

semiargentea, Feld.

Confined to tropical South America.

31. Genus ARGOPTERON, NOV.

Type, *aureipennis*, Blanch.

Antennæ more than half the length of costa; club moderate, straight, elongate, tip blunt. Palpi porrect; second and third joints slender, clothed to the tip with laxly set scales. Fore wing: costa very straight, inner margin considerably longer than outer margin; cell less than two-thirds the length of costa; vein 12 reaching costa before the end of cell; upper discocellular slightly longer than lower; vein 5 slightly nearer to 4 than to 6; vein 3 shortly before the end of cell; vein 2 more than twice as far from end of cell as from base of wing. Hind wing: outer margin rounded; vein 7 close to end of cell; vein 5 well developed, slightly nearer to 6 than to 4; vein 3 close to end of cell; vein 2 slightly nearer to base of wing than to end of cell. Fore tibiæ very long, without epiphysis. Hind tibiæ with only terminal pair of spurs. Abdomen reaching well beyond the anal angle of the hind wings.

aureipennis, Blanch. 1. | *puellina*, Calv. 2.

Mabille has recently redescribed what is accepted as the female of *aureipennis* under the name *Steropes tripunctatus*.

Confined to South America.

32. Genus HETEROPTERUS.

Heteropterus, Dum. Zool. Anal. p. 271 (1806).

Type, *morpheus*, Pall.

Antennæ short, less than half the length of costa; club moderate, straight, elongated, blunt. Palpi porrect, densely clothed with laxly set scales, almost concealing the third joint, which is short, slender, and bluntly conical. Fore wing: inner margin longer than outer margin; cell less than two-thirds the length of costa; vein 12 reaching costa before the end of cell; upper discocellular short but distinct; middle discocellular longer than lower; vein 5 slightly nearer to 4 than to 6; vein 3 shortly before end of cell; vein 2 more than twice as far from end of cell as from base of wing. Hind wing: outer margin even; vein 7 well before end of cell; discocellulars and vein 5 barely traceable; vein 3 well before end of cell, more than twice as far from 2 as from 4; vein 2 nearer to base of wing than to end of cell. No epiphysis on fore tibiæ. Hind tibiæ almost naked; in *morpheus* with two pairs of spurs, in *ornatus* only with terminal pair. Abdomen reaching beyond the anal angle of hind wings.

{	<i>morpheus</i> , Pall.	1.
	<i>speculum</i> , Rott.	
	<i>steropes</i> , Wien. Verz.	
	<i>aracanthus</i> , Fabr.	
	<i>speculifer</i> , Fourer.	
	<i>ornatus</i> , Brem.	2.

Morpheus is a European and *ornatus* a Japanese species.

33. Genus PAMPHILA.

Pamphila, Fabr. Ill. Mag. vi. p. 287 (1807).

Type, *palæmon*, Pall.

Steropes, Boisd. Voy. Astrol. p. 167 (1832). Nom. præoc.

Carterocephalus, Led. Verh. zool. - bot. Gesellsch. Wien, ii. pp. 26, 49.

Type, *palæmon*, Pall.

Antennæ short, not half the length of costa; club stout, elongate, blunt. Palpi porrect, densely clothed with laxly set scales almost concealing the third joint, which is short, slender, and bluntly conical. Fore wing: inner margin considerably longer than outer margin; cell less than two-thirds the length of costa; vein 12 reaching costa before the end of cell; upper discocellular short but distinct, outwardly oblique; middle discocellular slightly longer than lower; vein 5 slightly nearer to 4 than to 6; vein 3 very close to end of cell; vein 2 almost equidistant from base of wing and end of cell. Hind wing: outer margin even; cell very long, reaching more than half across wing; vein 7 shortly before end of cell; discocellulars and vein 5 barely traceable; vein 3 immediately before end of cell; vein 2 considerably nearer to end of cell than to

base of wing. No epiphysis on fore tibiæ. Hind tibiæ slightly fringed and with only terminal pair of spurs.

<i>palemon</i> , Pall. 1.	<i>mesapano</i> , Sc. 3.
<i>paniscus</i> , Fabr.	<i>sylvius</i> , Knoch 4.
<i>brontes</i> , Wien. Verz.	<i>sylvicola</i> , Meig.
<i>mandan</i> , Edw. 2.	<i>argyrostigma</i> , Eversm. 5.

Some 600 or 700 species have been described in this genus, though the above five probably represent all the species which correctly belong to it. The remainder include species belonging to almost every described genus.

Distribution. Holarctic.

34. Genus CYCLOPIDES. (Plates II. fig. 10; III. fig. 14.)

Cyclopides, Hübner. Verz. p. 111 (1816). Type, *metis*, Linn.

Antennæ short, less than half the length of costa; club blunt, oval, without terminal crook. Palpi porrect; second joint thickly clothed with lax scales, almost concealing the third joint, which is slender and obtusely conical. Fore wing short and broad, outer margin convex, considerably shorter than inner margin; cell less than two-thirds the length of costa; vein 12 reaching costa well before the end of cell; vein 11 *very short, running at once into 12*; discocellulars suberect; vein 5 almost equidistant from 4 and 6, slightly nearer to 4; vein 3 close to end of cell; vein 2 equidistant from base of wing and vein 3. Hind wing evenly rounded; discocellulars and vein 5 hardly traceable; vein 2 nearer to 3 than to base of wing. No epiphysis on fore tibiæ. Hind tibiæ with two pairs of spurs, except in *willemi*, in which the upper pair are wanting; both pairs are distinct in the other five species here quoted except in *meninx*, in which the upper pair are minute.

<i>metis</i> , Linn. 1.	<i>willemi</i> , Wallgr. 4.
<i>malgacha</i> , Boisd. 2.	<i>*cheles</i> , Hew.
<i>limpopona</i> , Wallgr.	<i>meninx</i> , Trim. 5.
<i>agipan</i> , Trim. 3.	<i>argenteostriatus</i> , Plötz.

And one unnamed species.

Confined to Africa.

Synopsis of Genera of PAMPHILINÆ.

Section B.

a. Tip of antennæ blunt.

a¹. Club of antennæ forming a hollowed disk.

TARACTOCERA, Butler. Type, *mævus*, Fabr. (1)

b¹. Club of antennæ elongate.

a². Third joint of palpi horizontal.

a³. Apex of fore wing not produced.

AMPITIA, Moore. Type, *maro*, Fabr. (2)

b³. Apex of fore wing produced.

KEDESTES, g. n. Type, *lepenula*, Wallgr. (3)

b². Third joint of palpi erect.

a³. Fore wing very elongate.

APATSTUS, Hbn. Type, *mènes*, Cram. (4)

- b*³. Fore wing not elongate.
- a*¹. Fore wing: costa evenly arched, making the wing appear broader. *ANCYLONYMA*, Feld. Type, *numita*, Fabr. (5)
- b*¹. Fore wing, costa slightly concave.
- a*². Vein 2 of fore wing nearer to end of cell than to base of wing. *COPLODES*, Speyer. Type, *procris*, Felder. (6)
- b*³. Vein 2 of fore wing nearer to base of wing than to end of cell. *ADOPEA*, Billb. Type, *thamias*, Hufn. (7)
- b*. Tip of antennæ acuminate.
- a*¹. Terminal crook of antennæ minute, never as long as the width of the club.
- a*². Antennæ about twice as long as the breadth of thorax, but less than half as long as the costa.
- a*³. Vein 3 of fore wing immediately before the end of cell.
- a*⁴. Discal stigma on fore wing of male continuous, followed beneath by an inconspicuous field of erect scales.
- ERYNNIS*, Schrank. Type, *comma*, Linn. (8)
- ANTHOMASTER*, Sc. Type, *leonardus*, Harr. (9)
- b*¹. Discal stigma on fore wing of male bordered on either side by a streak of specialized scales, but with no field of erect scales beneath. *OCHLODES*, Sc. Type, *nemorum*, Boisd. (10)
- e*¹. Discal stigma of male discontinuous, followed beneath by a more or less conspicuous field of specialized scales. Hind tarsi longer than middle tarsi.
- THYMELICUS*, Hbn. Type, *vibex*, Hbn. (11)
- a*⁴. Discal stigma of male discontinuous, followed beneath by a very conspicuous field of specialized scales. Hind tarsi not longer than middle tarsi.
- ATALOPEDES*, Sc. Type, *huron*, Edw. (12)
- b*³. Vein 3 of fore wing well before the end of cell.
- POLITES*, Sc. Type, *peckius*, Kirby. (13)
- b*². Antennæ very short, hardly longer than the breadth of the thorax.
- a*³. Vein 2 of fore wing nearer to base of wing than to end of cell.
- HYLEPHILA*, Billb. Type, *phylæus*, Drury. (14)
- b*³. Vein 2 of fore wing nearer to end of cell than to base of wing.
- GEGENES*, Hbn. Type, *pygmaeus*, Hbn. (19)
- b*¹. Terminal crook of antennæ short, as long as or slightly longer than the width of the club.
- a*². Club of antennæ short and stout.
- a*³. Vein 2 of fore wing hardly nearer to end of cell than to base of wing. *CALPODES*, Hbn. Type, *ethlius*, Cram. (20)
- b*³. Vein 2 of fore wing considerably nearer to end of cell than to base of wing. *PARNARA*, Moore. Type, *guttatus*, Brem. (21)
- b*². Club of antennæ comparatively elongate.
- a*³. Fore wing: outer margin hardly, if at all, longer than inner margin.
- a*¹. Antennæ of moderate length.
- a*⁵. Vein 11 of fore wing not approximating to 12.
- a*⁶. Vein 3 of hind wing from before end of cell.
- a*⁷. Vein 2 of fore wing in the male nearer to end of cell than to base of wing.
- a*⁴. Male, vein 3 of fore wing immediately before end of cell.
- a*⁹. No discal stigma in male.
- a*¹⁰. Vein 3 of fore wing hardly twice as far from 2 as from 4.
- BAOBIS*, Moore. Type, *ocia*, Hew. (22)
- b*¹⁰. Vein 3 of fore wing many times further from 2 than from 4.
- a*¹¹. Outer margin of fore wing longer than inner margin.
- LERODEA*, Sc. Type, *eufala*, Smith-Abb. (23)

- b*¹¹. Inner margin of fore wing longer than outer margin.
 PADRAONA, Moore. Type, *mæsa*, Moore. (15)
- b*⁹. Male with a discal stigma on fore wing.
 PHLEBODES, Hbn. Type, *perfinax*, Cram. (30)
- b*⁸. Male, vein 3 of fore wing well before the end of cell.
*a*⁹. Male with a discal stigma on fore wing.
 TELICOTA, Moore. Type, *augias*, Linn. (16)
- b*⁹. No discal stigma on fore wing of male.
 ONRYZA, g. n. Type, *meiktila*, de N. (35)
- b*⁷. Vein 2 of fore wing in both sexes nearer to base of wing than to end of cell.
*a*⁸. Male with a circular glandular patch on hind wing at origin of vein 3.
 CUPITHA, Moore. Type, *tympanifera*, Moore. (34)
- b*⁷. Male with a linear discal stigma on upperside of fore wing.
*a*⁹. Hind and middle tibiæ conspicuously spined.
 LIMOCHORES, Sc. Type, *manatouqua*, Sc. (24)
- b*⁹. Hind and middle tibiæ not spined.
*a*¹⁰. Vein 3 of hind wing shortly before end of cell, almost twice as far from 2 as from 4.
 EUPHYES, Sc. Type, *metaconet*, Harris. (25)
- b*¹⁰. Vein 3 of hind wing immediately before end of cell, many times further from 2 than from 4.
 AUGIADES, Hbn. Type, *sylvanus*, Esp. (17)
- c*⁸. Male with two glandular streaks and a tuft of hair on underside of fore wing.
 GENEXNA, g. n. Type, *abima*, Hew. (27)
- d*⁸. No secondary sexual characters on the wings.
*a*⁹. Club of antennæ apart from terminal crook straight.
*a*¹⁰. Vein 7 of hind wing less than twice as far from 8 as from 6.
*a*¹¹. Vein 2 of hind wing less than twice as far from base of wing as from end of cell.
 PHEMIANES, Hbn. Type, *phineus*, Cram. (18)
- b*¹¹. Vein 2 of hind wing more than twice as far from base of wing as from end of cell.
 OLIGORIA, Sc. Type, *maculata*, Edw. (26)
- b*¹⁰. Vein 7 of hind wing more than twice as far from 8 as from 6.
*a*¹¹. Vein 2 of hind wing twice as far from base of wing as from end of cell.
 ACTINON, g. n. Type, *radians*, Moore. (28)
- b*¹¹. Vein 2 of hind wing not twice as far from base of wing as from end of cell.
*a*¹². Hind wing produced in the median area, the distance from base of wing to extremity of vein 4 considerably greater than the distance from extremity of vein 8 to extremity of vein 1 *a*.
 UDASPES, Moore. Type, *folus*, Cram. (37)
- b*¹². Hind wing not produced in the median area, the distance from base of wing to extremity of vein 4 less than the distance from extremity of vein 8 to extremity of vein 1 *a*.
 NOTOCRYPTA, de N. Type, *curvifascia*, Feld. (36)
- b*⁹. Club of antennæ apart from terminal crook arcuate.
 POANES, Sc. Type, *massasoit*, Sc. (31)

- b*⁶. Vein 3 of hind wing from end of cell.
*a*⁷. Fore wing short and broad, not apically produced.
 PHYCANASSA, Sc. Type, *viator*, Edw. (32)
*b*⁷. Fore wing produced apically.
*a*⁷. Vein 3 of fore wing nearer end of cell than base of wing. HALPE, Moore. Type, *beturia*, Hew. (29)
*b*⁷. Vein 3 of fore wing nearer base of wing than end of cell. ATRYTONE, Sc. Type, *iowa*, Sc. (33)
*b*⁸. Vein 11 of fore wing running very close to 12.
*a*⁸. Palpi conspicuous.
 BARACUS, Moore. Type, *vittatus*, Feld. (38)
*b*⁸. Palpi inconspicuous.
 ASTICTOPTERUS, Feld. Type, *jama*, Feld. (39)
*b*⁴. Antennæ exceptionally long.
*a*⁷. Vein 3 of hind wing well before end of cell.
 KERANA, Dist. Type, *armatus*, Druce. (40)
*b*⁵. Vein 3 of hind wing immediately before end of cell.
*a*⁶. Hind tibiæ thickly set with short spines and with only terminal pair of spurs.
 KATREUS, g. n. Type, *johnstonii*, Butler. (41)
*b*⁵. Hind tibiæ not spined and with two pairs of spurs.
*a*⁷. Vein 2 of fore wing nearer to base of wing than to end of cell.
*a*⁸. Vein 2 of hind wing almost equidistant from end of cell and base of wing.
 ANCISTROIDES, Butl. Type, *longicornis*, Butl. (42)
*b*⁴. Vein 2 of hind wing more than twice as far from base of wing as from end of cell.
 PIRDANA, Dist. Type, *hyela*, Hew. (43)
*b*⁷. Vein 2 of fore wing nearer to end of cell than to base of wing.
*a*⁸. Vein 11 of fore wing running very close to 12.
 PARDALEODES, Butl. Type, *edipus*, Cram. (44)
*b*⁴. Vein 11 of fore wing not approximating to 12.
 CERATRICHLA, Butl. Type, *nothus*, Fabr. (45)
*b*³. Fore wing, outer margin considerably longer than inner margin.
*a*⁴. No secondary sexual characters on fore wing of male.
 PLASTINGIA, Butl. Type, *flavescens*, Feld. (46)
*b*⁴. Male with a linear discal stigma on fore wing.
 LEREMA, Sc. Type, *accius*, Smith-Abb. (47)
*a*⁴. Terminal crook of antennæ long, about twice as long as the breadth of the club.
*a*². Male with a tuft of hairs at base of fore coxæ.
 PITHAURIA, Moore. Type, *murdara*, Moore. (48)
*b*². No tuft of hair on fore coxæ of male.
*a*³. Hind wing conspicuously elongated, anal angle pointed.
 NICONIADES, Hbn. Type, *xanthaphes*, Hbn. (49)
*b*³. Hind wing only slightly elongate, anal angle rounded.
*a*⁴. Vein 3 of fore wing immediately before end of cell, more than three times as far from 2 as from 4.
*a*⁵. No discal stigma on fore wing of male.
*a*⁶. Fore wing not apically produced, apex not truncate.
*a*⁷. Costa of fore wing evenly arched from base to apex.
 COBALUS, Hbn. Type, *virbius*, Cram. (50)
*b*⁷. Costa arched at base, then straight to apex.
 LYCHNECHUS, Hbn. Type, *olenus*, Hbn. (51)
*b*⁶. Fore wing apically produced, apex truncate.
 CARYSTUS, Hbn. Type, *jolus*, Cram. (52)
*a*⁶. Fore wing apically produced, apex not truncate.
 LOTONGUS, Dist. Type, *calathus*, Hew. (53)

- b*⁵. Male with a discal stigma on fore wing.
*a*⁶. Fore wing apically produced, apex slightly truncate; discal stigma of male faint.
 THRACIDES, Hbn. Type, *phidon*, Cram. (54)
b. Fore wing not produced apically, outer margin evenly convex; discal stigma of male conspicuous.
 TALIDES, Hbn. Type, *sergestus*, Cram. (55)
*b*¹. Vein 3 of fore wing well before end of cell, less than twice as far from 2 as from 4.
*a*⁷. Male with a discal stigma on fore wing.
 PERICHARES, Sc. Type, *corydon*, Fabr. (56)
*b*⁵. No discal stigma on fore wing of male.
*a*⁷. Vein 5 of hind wing wanting.
*a*⁷. Vein 2 of fore wing almost equidistant from end of cell and base of wing.
 UNKANA, Dist. Type, *batarata*, Dist. (57)
*b*⁷. Vein 2 of fore wing almost equidistant from vein 3 and base of wing.
 HIDARI, Dist. Type, *irava*, Moore. (58)
*b*⁵. Vein 5 of hind wing well developed.
 PTEROTEINON, g. n. Type, *laufella*, Hew. (59)

1. Genus TARACTROCERA. (Plate III. fig. 20.)

Taractrocera, Butler, Cat. Lep. Fabr. p. 279 (1869).

Type, *mævius*, Fabr.

Antennæ short; club forming a flattened disk, conspicuously hollowed out, tip blunt. Palpi: second joint densely scaled; third joint long, slender, erect, reaching above the vertex, tip acuminate. Fore wing: inner margin longer than outer margin; cell less than two-thirds the length of costa; vein 12 reaching costa well before the end of cell; middle discocellular considerably longer than lower one; vein 5 close to bottom of cell; vein 3 well before end of cell, about twice as far from 2 as from 4; vein 2 slightly nearer to end of cell than to base of wing. Hind wing: outer margin even; vein 7 very close to end of cell; discocellulars faint; vein 5 not traceable; vein 3 immediately before end of cell; vein 2 twice as far from base of wings as from end of cell. Hind tibiæ with two pairs of spurs.

The only species of those mentioned below in which there is a stigma in the male is *papyria*, Boisd., in which there is an exceptionally long, slightly oblique stigma on the fore wing, extending from vein 5 as far as vein 1, meeting the latter considerably nearer the margin than the base of wing.

<i>mævius</i> , Fabr. 1.	<i>flavovittata</i> , Latr. 5.
<i>flaccus</i> , Fabr. 2.	<i>papyria</i> , Boisd. 6.
<i>sagara</i> , Moore. 3.	<i>myrolimbatus</i> , Snell. 7.
<i>celæno</i> , Cox 4.	* <i>nicévillei</i> , sp. n. 8.
* <i>ardonia</i> , Hew. 5.	* <i>eramas</i> , Hew. 9.
* <i>danna</i> , Moore 6.	

And seven unidentified species. The "*Pamphila*" *avonti* of de Nicéville also probably belongs to this genus.

This is a genus of very numerous species, which ranges from India through the Malay Archipelago to Australia, appearing to reach

its greatest development in the islands of the Archipelago; the peculiar form of the antennal club readily distinguishes it.

TARACTROCERA NICEVILLEI, sp. nov.

Above dark brown, spotted with yellow. Fore wing with a lunate spot at end of cell; a subapical spot divided into three by veins, a spot below this and close to the outer margin divided into two, and a triple spot extending from the upper median branch to as far as the submedian parallel to the outer margin, but further removed from it than the double spot above mentioned; these three spots form a sort of submarginal band from the costa to the inner margin, though not reaching either, the middle spot being much nearer the margin than the other two. Hind wing: a lunate spot at end of cell, and a submarginal series of three spots, the first small, the second out of line, being nearer the margin of the wing, and the third double.

Underside markings as above, the whole of the hind wing and the apex and costa of the fore wing washed with yellow. Cilia above and below pale yellow.

Expanse 24 millim.

In the British Museum, from Bombay.

This is the species which has been recorded from India by Col. Swinhoe as *coras* of Cramer. The true *coras* of Cramer is, however, an American species and is the type of the genus *Polites*, Scudder.

Nearest allied to *T. ceramas*, Hew., from which it differs in the much greater prominence of all the yellow markings.

2. Genus AMPITTIA.

Ampittia, Moore, Lep. Ceyl. i. p. 171 (1881).

Type, *maro*, Fabr.

Antennæ short; club moderate, straight, tip blunt. Palpi: second joint densely clothed with laxly set scales; third joint porrect, conspicuous, slender, tip bluntly conical. Fore wing: inner margin longer than outer margin; cell less than two-thirds the length of costa; vein 12 reaching costa well before the end of cell; middle discocellular longer than lower one; vein 5 slightly nearer to 4 than to 6; vein 3 in the male of the type species well before the end of cell, nearer to 2 than to 4; vein 3 in the female immediately before the end of cell; vein 2 nearer to end of cell than to base of wing; lower margin of cell curved upwards from base to vein 2, and angled at vein 3. Hind wing evenly rounded; vein 7 shortly before end of cell, curving upwards from its origin, the upper margin of cell curving downwards, the angle therefore being rounded like a tuning-fork and not acute; discocellulars very faint; vein 5 not traceable; vein 3 from end of cell; vein 2 shortly before end of cell, considerably more than twice as far from base of wing as from end of cell. Hind tibiæ with two pairs of spurs.

Male in the type species with a short glandular streak on the

upperside of fore wing, situated immediately below the origin of vein 2, but not touching either vein 2 or vein 1. This streak is wanting in the other species of the genus.

{ <i>maro</i> , Fabr. 1.	{ <i>rhadama</i> , Boisd. 3.
{ <i>camertes</i> , Moore.	{ <i>inornatus</i> , Trim. 4.
{ ? <i>dioscorides</i> , Fabr.	{ <i>pardalina</i> , Butl. 5.
* <i>cariate</i> , Hew. 2.	

To this genus would also appear to belong *mirza*, Mab., *bernieri*, Boisd., and *dispar*, Mab. There seems little doubt that the species described by Fabricius from Tranquebar as *dioscorides* is the female of *maro*; the latter name, however, being so well known has not been supplanted, as without examination of the type it is impossible to be quite certain that the two species are identical.

This genus appears to be confined to the Asiatic and African regions.

3. Genus KEDESTES, nov.

Type, *lepenula*, Wallgr.

Thymelicus, Trimen (*nec* Hübn), S. Afric. Butt. vol. iii. p. 299 (1889).

Antennæ rather short; club straight, tip blunt. Palpi porrect, third joint very slender. Fore wing: apex rather pointed, costa straight, outer margin longer than inner margin; cell less than two-thirds the length of costa; vein 12 reaching costa before the end of cell; discocellulars inwardly oblique, the middle the longer; vein 5 nearer to 4 than to 6; vein 3 well before the end of cell, about twice as far from 2 as from 4; vein 2 almost equidistant from end of cell and base of wing. Hind wing: outer margin even; vein 7 well before the end of cell; discocellulars outwardly oblique; vein 5 barely traceable; vein 3 immediately before the end of cell; vein 2 nearer to end of cell than to base of wing. Hind tibiæ with two pairs of spurs.

No sexual characters on wings except in *capenas*, in which there is a short discal stigma on fore wing of male, running from origin of vein 2 to about the centre of vein 1; vein 2 also arises slightly nearer to end of cell in the male of this species; in the female the venation is as in the other species of the genus.

{ <i>lepenula</i> , Wallgr. 1.	{ <i>chaca</i> , Trim. 4.
{ * <i>chersias</i> , Hew.	{ <i>tucusa</i> , Trim. 5.
{ <i>macomo</i> , Trim. 2.	{ <i>mohozutza</i> , Wall. 6.
{ * <i>capenas</i> , Hew. 3.	{ <i>callicles</i> , Hew. 7.
{ * <i>derbice</i> , Hew.	

This genus is confined to the African region.

4. Genus APAUSTUS. (Plate III. fig. 26.)

Apaustus, Hübn. Verz. p. 113 (1816). Type, *menes*, Cramer.

Antennæ: club moderate, straight, tip blunt. Palpi: third joint long, slender, naked, erect, reaching considerably higher than the vertex of the head. Fore wing elongate, inner margin considerably longer than outer margin; cell short, hardly more than half the length of

costa; vein 12 reaching costa before the end of cell; upper discocellular short but distinct, almost at right angles with upper margin of cell; middle discocellular long, inwardly oblique, lower discocellular short, lower margin of cell bent abruptly upwards at vein 3, the portion between veins 3 and 4 being in the same straight line as the lower discocellular; vein 2 close to 3, many times further from base of wing than from vein 3. Hind wing very narrow, the abdomen extending far beyond the anal angle; outer margin even; vein 7 shortly before the end of cell; discocellulars and vein 5 faint; vein 3 shortly before the end of cell, twice as far from 2 as from 4; vein 2 almost equidistant from end of cell and base of wings. Hind tibiæ with two pairs of spurs.

menes, Cram. 1.
gracilis, Feld. ... 2.

Confined to tropical South America.

5. Genus *ANCYLOXYPHA*.

Ancyloxypha, Felder, Verh. zool.-bot. Gesellsch. Wien, xii. p. 477 (1862). Type, *numitor*, Fabr.

Antennæ very short; club moderate, straight, bluntly pointed. Palpi as in *Adopæa*. Fore wing not apically produced, costa and outer margin convex, inner margin longer than outer margin; cell less than two-thirds the length of costa; vein 12 very short, reaching costa before the centre; middle discocellular considerably longer than lower; vein 5 considerably nearer to 4 than to 6; lower margin of cell bent sharply upwards at vein 3, the portion between veins 3 and 4 lying in the same straight line as the lower discocellular; vein 3 consequently from lower angle of cell, about twice as far from 2 as from 4; vein 2 many times further from base of wing than from vein 3. Hind wing, outer margin even. Hind wing: vein 7 immediately before the end of cell; discocellulars sharply angled, the middle one being erect and the lower outwardly oblique; vein 5 not traceable; vein 3 shortly before the end of cell, nearer to 4 than to 2; vein 2 slightly nearer to end of cell than to base of wings. Hind tibiæ with two pairs of spurs. No sexual characters on wings.

{ *numitor*, Fabr.
puer, Hübn.

Habitat. North America.

The Asiatic species "*Cyclopides*" *subvittatus*, Moore, also appears to belong either to this genus or to one closely allied to it, but the only specimens I have been able to examine have been without antennæ and palpi; at any rate it does not belong to *Cyclopides*, from which the neururation at once separates it.

6. Genus *COPÆODES*.

Copæodes, Speyer, Stett. ent. Zeit. 1878, p. 183.

Type, *procris*, Felder.

Antennæ very short; club robust, straight, apex rounded. Palpi

as in *Adopæa*. Fore wing: costa straight, outer margin rather excised for the lower half; inner margin longer than outer margin; cell less than two-thirds the length of costa; vein 12 reaching costa before end of cell; middle discocellular more than twice the length of lower; vein 5 from close to bottom of cell; vein 3 well before end of cell in male, shortly before in female; vein 2 considerably nearer to end of cell than to base of wing. Hind wing: outer margin even; vein 7 well before end of cell, only slightly nearer to 6 than to 8; discocellulars and vein 5 barely traceable; vein 3 immediately before end of cell; vein 2 more than twice as far from base of wing as from end of cell. Hind tibiæ with two pairs of spurs. Abdomen slender, extending beyond the anal angle of hind wings.

Male with a linear stigma, parallel to the costa, running along the basal third of vein 3 and continued for a short distance immediately below the lower margin of cell; the terminal two-thirds of vein 3 is much attenuated, the male mark apparently arresting its full development.

{	<i>*aurantiaca</i> , Hew.	1.
	<i>procris</i> , Felder.	
	<i>nana</i> , H. S.	2.

Confined to Northern and Central America.

7. GENUS *ADOPEA*. (Plate III. fig. 27.)

Adopæa, Billb. Enum. Ins. p. 81 (1820). Type, *thaumas*, Hufn.
Pelion, Kirby, List Brit. Rhop. (1858). Type, *thaumas*, Hufn.

Antennæ short, less than half the length of costa; club elongate, straight or slightly arcuate, tip blunt. Palpi: second joint clothed with laxly-set scales; third joint long, slender, suberect. Fore wing: inner margin longer than outer margin; cell less than two-thirds the length of costa; middle discocellular more than twice as long as lower; vein 5 from close to bottom of cell; vein 3 close to end of cell; vein 2 (in both sexes) slightly nearer to base of wing than to end of cell. Hind wing: outer margin even, slightly excised at vein 2; vein 7 well before end of cell, only slightly nearer to 6 than to 8; discocellulars very faint, vein 5 not traceable; vein 3 immediately before end of cell; vein 2 more than twice as far from base of wing as from end of cell. Hind tibiæ with two pairs of spurs. Abdomen slender, extending beyond anal angle of hind wings.

Male with a linear discal stigma on the fore wing, in two portions—the upper portion long, lying below the inner margin of cell, from the origin of vein 3 to as far as vein 2; the lower portion short, in continuation of the upper portion, from below vein 2 to not quite as far as vein 1.

{	<i>thaumas</i> , Hufn.	1.	{	<i>hyrax</i> , Led.	3.
	<i>linca</i> , Wien. Verz.			<i>actæon</i> , Esp.	4.
	<i>venula</i> , Hübn.			<i>hyllax</i> , Fab.	5.
	<i>lincola</i> , Ochs.	2.		<i>*boeta</i> , Hew.	6.
	<i>virgula</i> , Hübn.			<i>wrightii</i> , Edw.	7.

The species *wrightii* and *boeta* differ from the type in the more

knobbed antennæ, while *hylax* differs in the shape of the wings and in wanting the discal stigma in the male.

Distribution. Holarctic.

8. GENUS ERYNNIS.

Erynnis, Schrank, Fauna Boica, ii. 1, p. 157 (1801).

Type, *comma*, Linn.

Ocytes, Scudd. Syst. Rev. p. 55 (1872). Type, *metea*, Scudd.

Antennæ short, less than half the length of costa; club short, robust, terminal crook exceedingly minute. Palpi as in *Hylephila*. Neuration as in *Hylephila* except that vein 2 of the fore wing is much nearer to the base of the wing in the male, and vein 7 of the hind wing is slightly nearer the base of the wing in both sexes; the stigma on the fore wing is very similar to that of *Hylephila*, except that it entirely fills the angle at the bifurcation of vein 2, while in *Hylephila* the discal stigma crosses the interspace beyond the origin of vein 2.

<i>comma</i> , Linn.	1.	<i>metea</i> , Sc.	4.
<i>colorado</i> , Sc.	2.	<i>*florinda</i> , Butl.	5.
<i>manitoba</i> , Sc.	3.		

Distribution. Holarctic.

9. GENUS ANTHOMASTER.

Anthomaster, Scudd. Syst. Rev. p. 57 (1872).

Type, *leonardus*, Harr.

This genus does not differ appreciably from *Erynnis* in neuration or the stigma of the male, while the sexual organs show a remarkable similarity. The differences given by Scudder are very slight, and as far as the antennæ are concerned are absolutely imperceptible, and if it had not been separated by the greatest living authority on this group, it would have been unhesitatingly sunk in this paper as identical with *Erynnis*.

leonardus, Harris.

Confined to North America.

10. GENUS OCHLODES.

Ochloides, Scudd. Syst. Rev. p. 57 (1872). Type, *nemorum*, Boisd.

Antennæ short; club stout, rather elongate, with a minute terminal crook. Palpi as in *Hylephila*.

Neuration as in *Hylephila*, except that vein 7 of the hind wing is nearer to the base of the wing.

Male with a linear discal streak on fore wing, bordered on both sides with differently formed, loosely compacted scales.

<i>nemorum</i> , Boisd.	1.
<i>sonora</i> , Sc.	2.
<i>agricola</i> , Boisd.	3.

Confined to North America.

11. Genus *THYMELICUS*.

Thymelicus, Hübn. Verz. bek. Schmett. p. 113 (1816).

Type, *vibex*, Hübn.

Hedone, Scudd. Syst. Rev. p. 58 (1872). Type, *brettus*, Hübn.

Pyrrhosidia, Scudd. Mem. Bost. Soc. Nat. Hist. ii. p. 346 (1874).

Type, *mystic*, Scudd.

Antennæ less than half the length of costa; club very robust, short, crook very short. Palpi: second joint densely scaled, third joint bluntly conical, almost concealed.

Neuration of the fore wing as in *Hylephila*, and of the hind wing very similar except that vein 7 is slightly nearer the end of cell, and vein 2 rather more remote from end of cell. "Discal stigma of male unusually variable, but consisting in the main of two separated slender strigæ of dead black scales, that in the middle median interspace linear and arcuate, that in the lower subcircular or short linear, both surrounded and sometimes almost or quite concealed by overhanging, large and broad, somewhat loosely compacted scales, and followed beyond by a field of varying size, but generally narrow, of loosely compacted, erect, dusky, reflecting scales." (Scudder, Butt. New Engl. p. 1690.)

<i>vibex</i> , Hübn.	1.
{ <i>brettus</i> , Boisd.	2.
<i>wingina</i> , Sc.	
<i>mystic</i> , Sc.	3.

Confined to North America.

12. Genus *ATALOPEDES*.

Atalopedes, Scudd. Syst. Rev. p. 57 (1872).

Type, *huron*, Edw.

Pansydia, Scudd. Syst. Butt. p. 60 (1872).

Type, *cunaxa*, Hew.

Antennæ short, less than half the length of costa; club short, robust, terminal crook very short. Palpi as in *Hylephila*.

Neuration as in *Hylephila*. "Discal stigma in male consisting of, first, a longitudinal streak at base of middle median interspace, of shining, black, recurved rods; second, of a semilunar field of dead black erect rods in the lowest median interspace, overhung above by long curving scales; followed below by a short, small striga of shining black scales, and outside by a large field of erect loosely compacted scales." (Scudder, Butt. New Engl. p. 1657.)

<i>huron</i> , Edw.	1.
{ <i>mesogramma</i> , Latr. ♂	2.
<i>*cunaxa</i> , Hew. ♀.	

I am unable to point out the slightest structural difference between *huron* and *mesogramma*.

Confined to North America.

13. Genus *POLITES*.

Polites, Scudd. Syst. Rev. p. 57 (1872). Type, *peckius*, Kirby.

Antennæ short, less than half the length of costa; club short, robust, terminal crook minute. Palpi as in *Hylephila*.

Neuration as in *Hylephila* except that on the fore wing vein 3 is further from end of cell, being almost equidistant from 2 and 4; and on the hind wing, that vein 2 is nearer to the end of the cell, vein 3 being only slightly nearer to 4 than to 2. "Discal stigma of male consisting of an interrupted, gently arcuate or sinuate streak of dead black retrorse scales or rods edged below, especially in the middle, with a border of similar but dust-coloured erect rods and followed beneath by an inconspicuous large area of loosely compacted, erect, dusky scales." (Scudder, Butt. New Engl. p. 1679.)

{ *coras*, Cram. ♀.
peckius, Kirby. ♀.
wamsutta, Harris. ♂.

Confined to North America.

14. Genus *HYLEPHILA*.

Hylephila, Billb. Enum. Ins. p. 81 (1820).

Type, *phylæus*, Drury.

Euthymus, Scudd. Syst. Rev. p. 56 (1872).

Type, *phylæus*, Drury.

Antennæ very short, hardly one third the length of costa; club short, robust, terminal crook exceedingly minute. Palpi: second joint densely scaled, third joint minute, suberect, bluntly conical.

Fore wing: inner margin slightly longer than outer margin. Cell less than two-thirds the length of costa; vein 5 from close to bottom of cell; vein 3 very close to end of cell; vein 2 considerably nearer to base of wing than to end of cell, in the female this vein is slightly more remote from base of wing. Hind wing: outer margin even, slightly excised between veins 3 and 1*b*; vein 7 well before end of cell, almost equidistant from 6 and 8; discocellulars faint; vein 5 not traceable; veins 2, 3, and 4 all close together, 3 about twice as far from 2 as from 4. Hind tibiæ with two pairs of spurs. Male with a linear discal stigma on fore wing, extending from origin of vein 3 as far as vein 1, and edged exteriorly with an outwardly diffused streak of raised scales.

phylæus, Drury 1.
fasciolata, Blanch. ... 2.
fulva, Blanch. 3.

Confined to America.

15. Genus *PADRAONA*.

Padraona, Moore, Lep. Ceyl. vol. i. p. 170 (1881).

Type, *mæsa*, Moore.

Antennæ: club moderate, elongate, with a short terminal crook. Palpi: second joint densely scaled; third joint short, slender, suberect, obtusely conical.

Fore wing: inner margin longer than outer margin; cell less than two-thirds the length of costa; middle discocellular about twice as long as lower; vein 5 considerably nearer to 4 than to 6; vein 3 immediately before end of cell; vein 2 almost equidistant from end of cell and base of wing, slightly nearer to end of cell. Hind wing: outer margin even, slightly excised between veins 2 and 1 $\bar{\sigma}$; vein 7 well before the end of cell; discocellulars very faint, vein 5 wanting; vein 3 close to end of cell, twice as far from 2 as from 4; vein 2 considerably nearer to end of cell than to base of wing. In the males of some of the species there is a short and very inconspicuous glandular streak, situated immediately above the centre of vein 1 on the upperside of the fore wing. Hind tibiæ with two pairs of spurs.

<i>goloides</i> , Moore	1.	<i>flava</i> , Murray	7.
<i>gola</i> , Moore	2.	<i>angustula</i> , H.-S.	8.
<i>dara</i> , Kollar	3.	<i>coroller</i> , Boisd	9.
<i>mæsa</i> , Moore		<i>epictetus</i> , Fabr.	10.
<i>pseudomæsa</i> , Moore	4.	<i>palmarum</i> , Moore	11.
* <i>mæsoides</i> , Butler	5.	<i>prusias</i> , Felder	12.
<i>sunias</i> , Felder	6.		

And twelve unidentified species.

This genus is apparently confined to the Asiatic and Australian regions, with the exception of *coroller* from Madagascar, and *epictetus* from tropical America; these two species are possibly not correctly assigned to *Padraona*, though I am unable to point out how they can be separated from it.

There is an Australian genus closely allied to *Padraona* which is represented in the British Museum collection by *marnas*, Felder, *lascivia*, Rosenstock, and four unidentified species. This genus differs from *Padraona* in its much broader wings, slightly different venuration, and in the male in some species being provided with a linear discal stigma on the fore wing.

16. Genus TELICOTA.

Astycus, Catal. Frank. p. 185 (1825). Type, *augias*, Linn.

Telicota, Moore, Lep. Ceyl. vol. i. p. 169 (1881).

Type, *augias*, Linn.

Antennæ: club stout, elongate, terminal crook short. Palpi: second joint laxly scaled, third joint suberect, bluntly conical. Fore wing: inner margin longer than outer margin; cell less than two-thirds the length of costa; vein 5 close to bottom of cell. In the male; vein 3 is well before the end of cell, considerably nearer to vein 2 than to 4, and vein 2 is nearer to the end of the cell than to the base of the wing. In the female vein 3 is immediately before the end of the cell, and vein 2 is nearer to the base of the wing than to the end of the cell. Hind wing: vein 7 well before the end of cell, the upper margin of cell being bent downwards at its origin; discocellulars faint; vein 5 not traceable; veins 2, 3, and 4 all close together; vein 3 about twice as far from 2 as from 4. Hind tibiæ with two pairs of spurs. Male with a linear discal stigma on the

upperside of the fore wing, extending from the base of vein 4 to as far as the submedian, being twice interrupted at veins 2 and 3.

<i>augias</i> , Linn.	1.
<i>bambusa</i> , Moore	2.
<i>augiades</i> , Felder	3.
<i>eurotas</i> , Felder	4.
* <i>moseleyi</i> , Butl.	5.

And three unnamed species.

Scott, in his 'Australian Lepidoptera,' has figured what he identifies as the two sexes of *phineus*, Cramer; the male figured is the female of *augiades*, and the female appears to be a bad figure of *Padraona prusias*, Felder. The true *phineus*, described from Surinam, is in the British Museum from Ecuador and Bolivia, and is the type of a distinct genus. Mr. Butler has also wrongly identified *phineus* and records it from Amboina.

Hübner's name *Astycus* has not been adopted for this genus, as it has never been characterized, and was only published in a sale-list of Frank's collection; the twenty-two species enumerated under it belong to at least thirteen different genera.

This genus ranges from India to Australia.

17. Genus AUGIADES. (Plate II. fig. 6.)

Augiades, Hübner. Verz. 112 (1816). Type, *sylvanus*, Esper.

Antennæ: club robust, elongate, terminal crook short. Palpi: second joint laxly scaled, third joint short, obtusely conical. Fore wing: inner margin slightly longer than outer margin; cell less than two-thirds the length of costa; vein 5 from close to bottom of cell; vein 3 immediately before the end of cell; vein 2, in male considerably, in female slightly nearer to base of wing than to end of cell. Hind wing: vein 7 well before the end of cell; discocellulars faint; vein 5 not traceable; vein 3 immediately before the end of cell, many times farther from 2 than from 4; vein 2 considerably nearer to end of cell than to base of wing. Hind tibiæ with a long fringe and with two pairs of spurs. Male with a linear discal stigma on fore wing extending from origin of vein 3 to as far as vein 1.

<i>sylvanus</i> , Esper	1.
<i>heroulea</i> , Butler	2.
<i>venata</i> , Bremer	3.

And one unidentified species.

18. Genus PHEMIADES.

Phemiades, Hübner. Verz. p. 112 (1816). Type, *phineus*, Cramer.

Antennæ rather long; club slender, elongated, with a short terminal crook. Palpi: second joint densely scaled, third joint minute. Fore wing very little produced at apex; inner and outer margins subequal; cell less than two-thirds the length of costa. Fore wing: vein 5 close to bottom of cell; vein 3 immediately before end of cell; vein 2 considerably nearer to base of wing than to end of cell.

Hind wing broadly rounded; outer margin very slightly excised at vein 2; vein 7 well before end of cell; discocellulars faint; vein 5 hardly traceable; vein 3 immediately before end of cell; vein 2 well before end of cell, nearer to end of cell than to base of wing. Hind tibiæ with two pairs of spurs and with a long fringe of coarse hairs. No secondary sexual characters on wings.

phineus, Cramer 1.
**utha*, Hew. 2.

And an unidentified species.

Confined to tropical South America and the West Indies.

19. Genus GEGENES. (Plate III. fig. 30.)

Gegenes, Hübn. Verz. p. 107 (1816). Type, *pygmæus*, Hübn.

Philoodus, Ramb. Faune Ent. Andal. ii. p. 308 (1840).

Type, *nostrodamus*, Fabr.

Antennæ very short, hardly a third the length of costa; club robust, short, terminal crook minute. Palpi: third joint hardly visible. Fore wing: outer margin longer than inner margin; cell less than two-thirds the length of costa; vein 5 from close to bottom of cell; vein 3 immediately before end of cell; vein 2 nearer to end of cell than to base of wing. Hind wing rather elongated; outer margin even, slightly excised between veins 2 and 1 *b*; vein 7 well before the end of cell; discocellulars faint; vein 5 not traceable; veins 2, 3, and 4 very close together; vein 3 about twice as far from 2 as from 4; lower margin of cell angled at vein 2. Hind tibiæ with two pairs of spurs. No secondary sexual characters on the wings of the male except in a single specimen of an unidentified species in the British Museum from Victoria Nyanza, in which there is a large ill-defined rounded spot of appressed scales on the upperside of the fore wing below end of cell.

{ *nostrodamus*, Fabr. 1.
 pygmæus, Hübn. (nec Fabr.).
 pumilio, Hoffm.
 lefebrii, Ramb.

{ *karsana*, Moore 2.
 hottentota, Latr. 3.
 letterstedti, Wallgr.

And one unidentified species.

Ranges over the Mediterranean region, India, and Africa.

20. Genus CALPODES.

Calpodes, Hübn. Verz. p. 107 (1816). Type, *ethlius*, Cram.

Antennæ: club stout; terminal crook rather long, about half the length of the rest of club. Palpi: second joint densely scaled, pressed close against the face; third joint almost entirely concealed. Fore wing: costa nearly straight; inner margin slightly longer than outer margin; cell less than two-thirds the length of costa; vein 12 reaching costa well before end of cell; middle discocellular inwardly oblique, considerably longer than lower one; vein 5 considerably nearer to 4 than to 6; vein 3 shortly before end

of cell, curved strongly downwards; vein 2 slightly nearer to end of cell than to base of wing. Hind wing conspicuously lobate; vein 7 well before end of cell; discocellulars outwardly oblique; veins 2, 3, and 4 all close together; vein 3 nearer to 4 than to 2; lower margin of cell slightly angled at vein 2, more conspicuously at vein 3. Hind tibiæ with two pairs of spurs. No secondary sexual characters on fore wing of male.

<i>ethlius</i> , Cram.	1.
<i>nero</i> , Fabr.	2.
<i>ocola</i> , Edw.	3.
<i>nyctelius</i> , Latr.	4.
<i>ares</i> , Felder	5.
<i>ochramus</i> , Cram.	6.

<i>brino</i> , Cram.	7.
<i>epitus</i> , Cram.	8.
<i>evadnes</i> , Cram.	9.
<i>egita</i> , Hew.	10.
<i>lutetia</i> , Hew.	11.

And four unidentified species.

Tropical American.

21. Genus PARNARA. (Plate III. fig. 29.)

Parnara, Moore, Lep. Ceyl. vol. i. p. 166 (1881).

Type, *guttatus*, Brem.

Chapra, Moore, Lep. Ceyl. vol. i. p. 169 (1881).

Type, *mathias*, Fabr.

Antennæ: club short and stout, terminal crook very short, tip acuminate. Palpi as in *Baoris*. Fore wing: inner margin longer than outer margin; cell less than two-thirds the length of costa; vein 12 reaching costa well before end of cell; upper discocellular minute, middle very long, lower very short; vein 5 from close to bottom of cell; neuration entirely as in *Baoris*. Hind tibiæ with two pairs of spurs. Male in some species with a linear discal streak on the fore wing, situated obliquely between veins 2 and 1.

Section A.—Male with a discal stigma.

{ <i>mathias</i> , Fabr.	1.	{ <i>promincens</i> , Moore	3
{ <i>mohopaani</i> , Wlgr.		{ <i>mencia</i> , Moore	4.
{ <i>*agna</i> , Moore	2.		
{ <i>*chaya</i> , Moore.			

Section B.—No discal stigma in male.

<i>borbonica</i> , Boisd.	5.	{ <i>bada</i> , Moore	9.
<i>marchalii</i> , Boisd.	6.	{ <i>guttatus</i> , Brem.	10.
<i>poutieri</i> , Boisd.	7.	{ <i>*mangala</i> , Moore.	
<i>*flexilis</i> , Swinhoe	8.		

The sole difference between the two genera *Chapra* and *Parnara* is the presence or absence of the sexual streak of the fore wing, a character which is certainly of no value in this genus, as it would assign two such closely allied species as *borbonica* and *mathias* to two separate genera.

This genus is closely allied to *Baoris*, from which it may be separated by the shape of the antennal club.

African and Asiatic.

22. Genus BAORIS. (Plate III. fig. 28.)

Baoris, Moore, Lep. Ceyl. vol. i. p. 165 (1881).Type, *oceia*, Hewitson.*Parnara auctorum* (part.).

Antennæ: club moderate, elongate, with a short terminal crook; tip acuminate. Palpi: second joint densely scaled, third joint almost entirely concealed. Fore wing: inner and outer margins subequal; cell less than two-thirds the length of costa; vein 12 reaching costa well before the end of cell; upper discocellular minute, middle discocellular very long, lower very short; vein 5 from close to bottom of cell; vein 3 slightly curved at its base, close to end of cell, twice as far from 2 as from 4; vein 2 considerably nearer to end of cell than to base of wing. Hind wing elongated; outer margin even; vein 7 well before end of cell; discocellulars outwardly oblique; vein 5 not traceable; veins 2, 3, and 4 all very close together; vein 3 twice as far from 2 as from 4; the lower margin of cell bent upwards at vein 2. Hind tibiæ with two pairs of spurs. Male in the type species with a tuft of long hairs on the upperside of the hind wing, attached along the upper margin of the cell and directed downwards across the cell. This character is not found in any other species of the genus.

* <i>oceia</i> , Hew. ♂	1.
<i>sikkima</i> , Swinhoe. ♂ ♀.	
<i>scopulifera</i> , Moore. ♂ ♀.	
<i>unicolor</i> , Moore. ♂ ♀.	
<i>penicillata</i> , Moore. ♂.	
<i>farri</i> , Moore. ♀.	
* <i>kumara</i> , Moore	2.
* <i>seriata</i> , Moore	3.
* <i>molata</i> , Moore	4.
<i>arusteni</i> , Moore	5.
<i>fatuellæ</i> , Hopff.	6.
<i>assamensis</i> , Wood-Mason,	
de Nicéville	7.
<i>narooa</i> , Moore	8.
<i>contigua</i> , Mab.	9.

<i>pagana</i> , de Nicéville	10.
<i>toona</i> , Moore	11.
* <i>eltola</i> , Hew.	12.
<i>inconspicua</i> , Bert.	13.
* <i>jansonensis</i> , Bert.	14.
<i>pellucida</i> , Murray	15.
* <i>marsena</i> , Hew.	16.
<i>uma</i> , de Nicéville	17.
* <i>cornassa</i> , Hew.	18.
<i>colaca</i> , Moore	19.
<i>cingalensis</i> , Moore.	
<i>bevani</i> , Moore	20.
<i>zelleri</i> , Led.	21.
* <i>umbrata</i> , Butl.	22.

African and Asiatic.

23. Genus LERODEA.

Lerodea, Scudd. Syst. Rev. p. 59 (1872). Type, *eufala*, Edw.

Antennæ: club robust, slightly elongate; antennal crook short. Palpi: second joint densely scaled; third joint erect, minute, bluntly conical. Fore wing: outer margin longer than inner margin; cell less than two-thirds the length of costa; vein 5 from close to bottom of cell; vein 3 immediately before the end of cell; vein 2 almost equidistant from end of cell and base of wing. Hind wing: vein 7 shortly before the end of cell; discocellulars faint; vein 5 not traceable; vein 3 immediately before end of cell; vein 2 well before end of cell, but considerably nearer to it than to the base of the wing. No secondary sexual characters on fore wing of male. Hind tibiæ with two pairs of spurs.

<i>eufala</i> , Edw.	1.		<i>fusca</i> , Grote & Robinson	2.
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Confined to North America.

24. Genus LIMOCHORES.

Limochores, Scudd. Syst. Rev. p. 59 (1872).Type, *manataaqua*, Scudd.

Antennæ: club robust, rather elongate; terminal crook short. Palpi: third joint erect, short, bluntly conical. Fore wing: inner and outer margins subequal; cell less than two-thirds the length of costa; vein 5 close to bottom of cell; vein 3 immediately before end of cell; vein 2 nearer to base of wing than to end of cell. Hind wing: vein 7 well before end of cell; discocellulars faint; vein 5 not traceable; vein 3 immediately before end of cell; vein 2 well before end of cell, but considerably nearer to it than to base of wing. Hind tibiæ with two pairs of spurs, and both middle and hind tibiæ conspicuously spined.

Male with a linear discal stigma on upperside of fore wing from origin of vein 3 to as far as vein 1.

{ <i>manataaqua</i> , Sc.	1.	{ <i>bimacula</i> , Grote & Rob.	3.
{ <i>cernes</i> , Harris.		{ <i>acanootus</i> , Sc.	
<i>orono</i> , Sc. ...	2.	<i>arpa</i> , Boisd.	4.

Confined to North America.

25. Genus EUPHYES.

Euphyes, Scudd. Syst. Rev. p. 69 (1872).Type, *metacomet*, Harris.

Antennæ: club stout, elongate, with a short terminal crook. Palpi: second joint clothed with laxly-set scales; third joint slender, obtusely conical, projecting well beyond the clothing of the second joint. Fore wing: costa straight; apex rather produced; inner margin considerably longer than outer margin; cell less than two-thirds the length of costa; vein 5 close to bottom of cell; vein 3 shortly before end of cell; vein 2 nearer to base of wing than to end of cell. Hind wing: outer margin even; vein 7 well before end of cell; vein 3 immediately before end of cell; vein 2 considerably nearer to end of cell than to base of wing. Hind tibiæ with two pairs of spurs. Male with a linear glandular streak on fore wing extending from base of vein 3 to as far as vein 1.

metacomet, Harris.

Confined to North America.

26. Genus OLIGORIA.

Oligoria, Scudd. Syst. Rev. p. 61 (1872). Type, *maculata*, Edw.

Antennæ: club robust, elongate, with a short terminal crook. Palpi: third joint minute, obtusely conical, almost entirely concealed. Fore wing hardly produced at apex; inner and outer margins subequal; cell less than two-thirds length of costa; vein 5 from close to bottom of cell; vein 3 very close to end of cell; vein 2 nearer to base of wing than to end of cell. Hind wing: outer margin even, very slightly excised at vein 2; vein 7 well before end of cell, only slightly nearer to 6 than to 8; discocellulars and vein 5 barely traceable; vein 3 immediately before end of cell; vein 2 more

than twice as far from base of wing as from end of cell. Hind tibiæ with two pairs of spurs. No sexual characters on the wings.

maculata, Edw.

Habitat. Southern U.S.

27. Genus GEHENNA, nov.

Type, *abima*, Hew.

Antennæ and palpi as in *Halpe*. Fore wing: inner and outer margins subequal, rather produced at apex; cell less than two-thirds the length of costa; middle discocellular more than twice the length of lower one; vein 5 from close to bottom of cell; vein 3 well before end of cell; vein 2 close to base of wing. Hind wing slightly elongated; outer margin even; costa very prominently arched at base; vein 7 shortly before end of cell; discocellulars faint; vein 5 not traceable; vein 3 close to end of cell, twice as far from 2 as from 4; vein 2 considerably nearer to end of cell than to base of wing; lower margin of cell not angled at veins 3 or 2. Hind tibiæ with a long fringe and with two pairs of spurs.

Male with two glandular streaks on the underside of fore wing, the lower along vein 2 at its origin and the upper immediately above it on the lower margin of cell, and there is also a tuft of hairs affixed to the inner margin at extreme base of the wing and directed upwards.

* *abima*, Hew.

Habitat. Macassar.

28. Genus ACTINOR, nov.

Type, *radians*, Moore.

Antennæ and palpi as in *Halpe*. Fore wing: shape and neurulation as in *Halpe*, except that vein 2 of the fore wing is very remote from 3, being nearer to the base of wing than to the end of cell, while in *Halpe* it is considerably nearer the end of cell. Hind wing: cell extending more than half across wing; vein 7 close to end of cell, arising at an acute angle; discocellulars faint; vein 5 distinctly traceable; vein 3 immediately before end of cell; vein 2 considerably nearer to end of cell than to base of wing. No secondary sexual characters on wings; lower margin of cell not angled at veins 2 or 3.

radians, Moore.

The type came from N.W. Himalayas.

29. Genus HALPE. (Plate II. figs. 3, 4.)

Halpe, Moore, Proc. Zool. Soc. 1878, p. 689. Type, *beturia*, Hew.

Antennæ: club moderate, elongate, with a short apical crook, tip acuminate. Palpi porrect; third joint minute, obtusely conical. Fore wing: inner margin longer than outer margin; cell of fore wing less than two-thirds the length of costa; vein 12 reaching costa before the end of cell; upper discocellular about twice the length of lower; vein 5 considerably nearer to 4 than to 6; vein

3 well before end of cell, about equidistant from 2 and from 4; vein 2 nearer to end of cell than to base of wing. Hind wing evenly rounded; cell very short; vein 7 well before end of cell, at its origin vein 7 is sharply bent upwards, and the upper margin of the cell is bent downwards so that the angle is shaped like a tuning-fork; discocellulars faint; vein 5 not traceable; vein 3 from end of cell; vein 2 very much nearer to end of cell than to base of wing; lower margin of cell slightly angled at vein 2. The above is the neururation of the male; in the female vein 3 of the fore wing is slightly nearer to end of cell, and on the hind wing vein 7 arises at an acute angle with the upper margin of cell. Hind tibiæ slightly fringed and with two pairs of spurs. In most species the male is provided with a linear discal stigma on the fore wing, running obliquely from the origin of vein 3 almost to the inner margin. In those species in which there is no discal stigma, the neururation of both wings of the male agrees with that of the female.

* <i>beturia</i> , Hew.	1.	<i>gupta</i> , de N.	8.
* <i>moorei</i> , sp. n.	2.	<i>zena</i> , Hew.	9.
{ * <i>homolea</i> , Hew.	3.	<i>brunnea</i> , Moore.	10.
		<i>astigmata</i> , Swinhoe ...	11.
* <i>cerata</i> , Hew.	4.	<i>honorei</i> , de N.	12.
<i>varia</i> , Murray	5.	<i>decorata</i> , Moore	13.
<i>sitala</i> , de N.	6.	* <i>masoni</i> , Moore	14.
<i>ceylonica</i> , Moore	7.		

Of the above species, *astigmata*, *honorei*, and *masoni* are without the discal stigma, and it is very short and inconspicuous in *decorata*. Similar differences in the neururation of the male and the female are found in the Asiatic genera *Pithauria* and *Aëromachus*, in both of which the male when it has no discal stigma agrees with the female in neururation, but when provided with a discal stigma differs from the female in the position of vein 3 of the fore wing and in the distortion of the bifurcation of vein 7 of the hind wing.

Confined to Southern Asia and Japan.

HALPE MOOREI, sp. nov.

H. beturia auctorum, nec Hewitson.

Above dark brown. Fore wing: male with seven transparent white spots—two in cell, sometimes united, three subapical, and two on disk; the female has an additional opaque white spot at the centre of submedian. Hind wing with the disk suffused with paler yellowish. Cilia: fore wing grey, chequered with brown at end of veins; hind wing uniform greyish. Underside: fore wing with spots as above and with an additional row of six or seven submarginal greyish-white spots between the veins, running parallel to the outer margin; costa, apex, and greater part of outer margin suffused with yellowish scales. Hind wing with a conspicuous transverse white band of spots extending across wing just beyond cell from outer angle as far as submedian, the spot immediately outside cell considerably the largest; a small whitish spot at end of cell, an incomplete submarginal row of whitish spots from anal angle, the two inner ones

prominent, remainder minute. The whole wing more or less dusted with yellowish scales. Tip of antennæ orange-yellow; club and shaft black above, yellowish beneath; palpi dark above, greyish white below.

Expanse, ♂ 34 mm., ♀ 36 mm.

Habitat. India, Burma, Andamans.

This is the species which usually stands in Indian collections as *beturia*, Hew. Hewitson, however, included two distinct species under the name *beturia*, one from Celebes and the other from the Nilgiris; as the former is the one that agrees with his description, it must be taken as the typical one.

The true *beturia* differs from *moorei* in having only four spots on the upperside in the male, two discal and two subapical, and the fringe is unicolorous throughout; in what appears to be the female there is an additional minute subapical spot, a minute indistinct spot at upper angle of cell, and the usual spot peculiar to the female on the submedian. On the underside of the hind wing all the spots are much diffused and irrorated with yellow. It is also a considerably larger insect, the male expanding 42 mm., and the female 43 mm.

I have much pleasure in naming this species after Mr. Moore, from whom I have received much assistance in the loan of types and other specimens.

30. GENUS PHLEBODES.

Phlebodes, Hübn. Verz. p. 107 (1816). Type, *pertinax*, Cram.

Antennæ: club slender, elongated, terminal crook short. Palpi: second joint densely scaled; third joint minute, bluntly conical. Fore wing: inner and outer margins subequal; cell less than two-thirds the length of costa; vein 5 from close to bottom of cell; vein 3 immediately before the end of cell; vein 2 slightly nearer to end of cell than to base of wing. Hind wing: vein 7 shortly before end of cell; discocellulars faint; vein 5 not traceable; veins 2, 3, 4 all close together; vein 3 about twice as far from 2 as from 4. Hind tibiæ with two pairs of spurs. Male with a linear glandular streak on upperside of fore wing.

pertinax, Cram.

Confined to South America.

31. GENUS POANES.

Poanes, Scudd. Syst. Rev. p. 55 (1872).

Poanes, Scudd. Butl. New Engl. vol. ii. p. 1592 (1889).

Type, *massasoit*, Scudd.

Antennæ rather short; club robust, arcuate, tip acuminate. Palpi: second joint clothed with long laxly-set scales; third joint slender, cylindrical, short, bluntly pointed. Fore wing: costa nearly straight, outer margin convex, slightly shorter than inner margin; cell less than two-thirds the length of costa; vein 12 reaching costa well before end of cell; middle discocellular considerably longer than lower one; vein 5 considerably nearer to

4 than to 6; vein 3 shortly before end of cell; vein 2 almost equidistant from end of cell and base of wing. Hind wing: outer margin even; vein 7 very close to end of cell; discocellulars faint; vein 5 not traceable; vein 3 immediately before end of cell; vein 2 nearer to end of cell than to base of wing. Hind tibiæ with two pairs of rather long spurs. No secondary sexual characters on wings of male.

massasoit, Sc.

32. Genus PHYCANASSA.

Phycanassa, Scudd. Syst. Rev. p. 56 (1872).

Phycanassa, Scudd. Butl. New Engl. vol. ii. p. 1600 (1889).

Type, *viator*, Edw.

Antennæ short; club straight, with a short terminal crook. Palpi much as in *Poanes*, comparatively longer. Neuration of fore wing as in *Poanes*, except that vein 2 is perceptibly nearer to base of wing than to end of cell. Hind wing: outer margin slightly excised between veins 3 and 1b; vein 7 well before end of cell; vein 3 from end of cell; vein 2 considerably nearer to end of cell than to base of wing. Hind tibiæ with two pairs of rather long spurs.

viator, Edw.

Confined to North America.

33. Genus ATRYTONE.

Atrytone, Scudd. Syst. Rev. p. 56 (1872). Type, *iowa*, Scudd.

Antennæ: club robust, rather elongate, terminal crook short. Palpi: second joint laxly scaled; third joint minute, bluntly conical. Fore wing: inner margin longer than outer margin; cell less than two-thirds the length of costa; vein 5 from close to bottom of the cell; vein 3 very close to end of cell; vein 2 considerably nearer to base of wing than to end of cell. Hind wing evenly rounded; vein 7 shortly before end of cell; discocellulars faint; vein 5 not traceable; vein 3 from end of cell; vein 2 nearer to end of cell than to base of wing. Hind tibiæ with two pairs of spurs. No sexual characters on wings.

<i>iowa</i> , Sc.	1.	{	var. <i>pocahontas</i> , Sc.
{ <i>zabulon</i> , Boisd.	2.		<i>quadaguina</i> , Sc.
{ <i>hobomok</i> , Monrr.			{ <i>logan</i> , Edw. 3.
			<i>delaware</i> , Edw.

And two unidentified species.

Confined to America.

34. Genus CUPITHA.

Cupitha, Moore, Journ. As. Soc. Beng. pt. ii. 1884, p. 47.

Type, *tympanifera*, Moore.

Antennæ: club moderate, straight, with a short terminal crook, tip acuminate. Palpi: second joint densely scaled; third joint minute, obtusely conical. Fore wing: inner margin [in ♂] convex towards

the base, subequal to outer margin; cell less than two-thirds the length of costa; vein 12 reaching costa before end of cell; middle discocellular considerably longer than lower one; vein 5 considerably nearer to 4 than to 6; vein 3 well before end of cell; vein 2 slightly nearer to base of wing than to end of cell. Hind wing: outer margin even; vein 7 immediately before end of cell; discocellulars faint; vein 5 not traceable. Female: veins 2, 3, and 4 all close together; vein 3 about equidistant from 2 and 4; vein 2 more than twice as far from base of wing as from end of cell. Male: with a circular glandular patch on hind wing at origin of vein 2, distorting the lower margin of cell, and altering the relative positions of veins 2, 3, and 4. The male is also furnished with a short tuft of hair attached to the underside of the fore wing close to the origin of vein 1.

{ *purpura*, Moore.
{ *tympanifera*, Moore.

These two forms occur together in Burma, Sikhim, and the Nilgiris, and the differences between them appear too slight to justify their separation.

35. Genus *ONRYZA*, nov. (Plate II. fig. 5.)

Type, *meiktila*, de N.

Antennæ and palpi as in *Halpe*. Fore wing: inner margin considerably longer than outer margin; cell less than two-thirds the length of costa: vein 12 reaching costa well before end of cell; middle discocellular considerably longer than lower one; vein 5 nearer to bottom of cell than to vein 6; vein 3 well before end of cell, about equidistant from 2 and 4; vein 2 nearer to end of cell than to base of wing. Hind wing: outer margin evenly rounded; vein 7 well before end of cell, straight, upper margin of cell curving downwards at the bifurcation; discocellulars outwardly oblique; vein 5 not traceable; veins 2, 3 and 4 all close together, lower margin of cell bent upwards at vein 2. Hind tibiæ with two pairs of spurs, the upper pair minute. Male with a patch of long recumbent hairs on the upperside of the hind wing, attached along vein 8 from close to the base of the wing.

meiktila, de N.

Habitat. Burma.

36. Genus *NOTOCRYPTA*.

Notocrypta, de Nicéville, Journ. Bomb. Nat. Hist. Soc. iv. p. 188 (1889).

Type, *curvifascia*, Felder.

Plesioneura, Felder, Wien. ent. Monat. vi. p. 29 (1862), nom. præoc.

Type, *curvifascia*, Felder.

Antennæ: club moderate, with a short terminal crook. Palpi: second joint densely scaled; third joint almost concealed, bluntly conical. Fore wing: inner and outer margins subequal; cell less than two-thirds the length of costa; vein 12 reaching costa almost opposite

end of cell; discocellulars suberect, the middle one considerably the longer; vein 5 much nearer to 4 than to 6; vein 3 close to end of cell; vein 2 considerably nearer to base of wing than to end of cell. Hind wing: outer margin even; vein 7 close to end of cell, more than twice as far from 8 as from 6; discocellulars and vein 5 very faint; vein 3 immediately before end of cell; vein 2 nearer to end of cell than to base of wing; lower margin of cell inconspicuously angled at vein 2. Hind tibiæ with two pairs of long spurs.

<i>curvifascia</i> , Felder	1.		* <i>albifascia</i> , Moore	4.
<i>restricta</i> , Moore	2.		* <i>insulata</i> , Butler	5.
{ <i>feisthamelii</i> , Boisd.	3.		* <i>proserpina</i> , Butler	6.
<i>alysos</i> , Moore.			<i>basylava</i> , de Nicéville ...	7.

And two unidentified species.

The *curvifascia* of Felder has been identified by some authors as identical with *alysos*, Moore; however, this does not seem to be the case, as in *alysos* there is an opaque white spot above the transparent white band on the underside of the fore wing, which is wanting in typical Chinese specimens of *curvifascia*. This latter species is therefore nearer to *restricta*, Moore, from which it may be distinguished by the lowest spot of the discal band being much indented; this, however, may be simply varietal, as the true *restricta* also occurs in China, and the spot above referred to is frequently slightly indented in Indian specimens of that species.

Alysos, Moore, must sink as a synonym of *feisthamelii*, Boisd., of which there are typical specimens in the British Museum which are absolutely inseparable from Indian specimens of *alysos*; this species can be readily identified by the costal opaque spot on the underside of the fore wing.

Ficulnea, Hew. = *signata*, Druce, and *tola*, Hew., are superficially very like species of *Notocrypta*, but their neuration is entirely different, and, as already suggested by Mr. de Nicéville, they require a separate genus.

Notocrypta is confined to Southern Asia.

37. GENUS UDASPES.

Udaspes, Moore, Lep. Ceyl. vol. i. p. 177 (1881).

Type, *folus*, Cram.

Antennæ: club moderate, with a short terminal crook. Palpi: second and third joints porrect; third joint minute, bluntly conical. Fore wing: inner margin slightly longer than outer margin; cell less than two-thirds the length of costa; vein 12 reaching costa just before end of cell; discocellulars suberect, the middle one considerably the longer; vein 5 much nearer to 4 than to 6; vein 3 close to end of cell; vein 2 considerably nearer to base of wing than to end of cell. Hind wing: outer margin even; vein 7 immediately before end of cell; discocellulars and vein 5 very faint; vein 3 immediately before end of cell; vein 2 about twice as far from base of wing as from end of cell; lower margin of cell inconspicuously

angled at vein 2. Hind tibiæ almost naked, with two pairs of spurs. No secondary sexual characters on wings.

{ *folus*, Cram.
 { *cicero*, Fabr.

Confined to Southern Asia.

38. Genus BARACUS.

Baracus, Moore, Lep. Ceyl. i. p. 162 (1881).

Type, *vitattus*, Felder.

Antennæ: club moderate, tip recurved, acuminate. Palpi porrect, conspicuous; second joint laxly clothed with long scales; third joint prominent, acuminate. Fore wing: inner margin longer than outer margin; cell less than two-thirds the length of costa; vein 12 reaching costa before end of cell; vein 11 curving upwards and running very close to, though not quite touching, vein 12; middle discocellular considerably longer than lower one; vein 5 much nearer to 4 than to 6, but not from bottom of cell; vein 3 close to end of cell, twice as far from 2 as from 4; vein 2 twice as far from base of wing as from 3, nearer to end of cell than to base of wing. Hind wing evenly rounded; vein 7 immediately before end of cell; vein 5 not traceable; discocellulars faint; vein 3 immediately before end of cell; vein 2 more than twice as far from base of wing as from end of cell. Hind tibiæ fringed and with two pairs of spurs.

<i>vittatus</i> , Felder	1.	<i>lepeletieri</i> , Latr.	4.
<i>subditus</i> , Moore	2.	<i>tsita</i> , Trim.	5.
<i>septentrionum</i> , Wood-		<i>inornatus</i> , Trim.	6.
Mason, de Nicéville...	3.		

And four unnamed species.

Trimen puts *lepeletieri* and its allies into *Cyclopidæ*, from which, however, they may be readily distinguished by veins 11 and 12 of the fore wing not anastomosing, and by several minor points of neururation, and also by the formation of their antennæ and palpi.

Confined to Africa and the Oriental region.

39. Genus ASTICTOPTERUS.

Astictopterus, Felder, Wien. ent. Monat. iv. p. 401 (1860).

Type, *jama*, Felder.

Antennæ: club slender, tip recurved, acuminate. Palpi porrect; third joint short, obtusely conical. Fore wing: inner margin longer than outer margin; cell less than two-thirds the length of costa; vein 12 reaching costa before end of cell; vein 11 curving upwards shortly after its origin and running close to, but not touching, vein 12; middle discocellular considerably longer than lower one; vein 5 much nearer to 4 than to 6, but not from close to bottom of cell; vein 3 well before end of cell, more than twice as far from 2 as from 4; vein 2 slightly nearer to 3 than to base of wing. Hind wing evenly rounded; vein 7 shortly before end of cell; discocellulars and vein 5 very faint; vein 3 shortly before end of cell, twice as far from 2 as from 4; vein 2 nearer to end of cell

than to base of wing. Hind tibiæ naked and with two pairs of long spurs.

<i>jama</i> , Felder	1.
<i>olivascens</i> , Moore	2.
<i>nubilus</i> , Mab.	3.

And one unidentified species.

A very heterogeneous collection of species have been described as belonging to this genus, most of which belong to the genera *Kerana*, *Sancus*, *Koruthaialos*, *Iambrix*, and *Baracus*. Of the remainder, *argenteo-ornatus*, Hew., *croites*, Hew., and *cynone*, Hew., belong to *Hesperilla* or a closely allied genus; *dhanada*, Moore, *aurivittata*, Moore, and *ladana*, Butler, belong to *Celænorrhinus*; while *ornatus*, Brem., and *unicolor*, Brem., belong to *Heteropterus*.

Confined to Southern Asia.

40. Genus KERANA.

Kerana, Dist. Rhop. Mal. p. 402 (1886). Type, *armatus*, Druce.

Antennæ long; club moderate, recurved at tip. Palpi: second joint densely scaled; third joint almost entirely concealed. Fore wing: inner margin longer than outer; cell less than two-thirds the length of costa; vein 12 reaching costa before end of cell; middle discocellular quite twice the length of lower one; vein 5 from close to bottom of cell; vein 3 well before end of cell; vein 2 almost equidistant from vein 3 and base of wing. Hind wing: outer margin evenly rounded; vein 7 shortly before end of cell; discocellulars and vein 5 faint, but not fully developed; vein 5 nearer to 4 than to 6; vein 3 well before end of cell, nearer to 4 than to 2; vein 2 nearer to end of cell than to base of wing. Hind tibiæ clothed with short recumbent scales and with two pairs of spurs.

The male of the type species differs from the other species of the genus in being provided with a patch of appressed scales occupying the entire cell of the hind wing on the upperside, and giving it a velvety appearance, and with a similar ill-defined patch towards the base of the hind wing on the underside. A somewhat similar male character is found in the genus *Trichosemeia*, Holland. The other species of the genus are without secondary male characters.

<i>armatus</i> , Druce	1.
* <i>gemmifer</i> , Butler	2.
<i>diocles</i> , Moore	3.

The "*Astictopterus*" *inornatus* of Butler also apparently belongs to this genus, but the type is in too bad condition to enable the point to be decided.

Confined to Southern Asia.

41. Genus KATREUS, nov.

Type, *johnstonii*, Butler.

Antennæ very long; club slender, recurved, apex acuminate. Palpi as in *Kerana*. Fore wing: inner margin longer than outer margin; cell less than two-thirds the length of costa; vein 12 reaching

costa before end of cell; *upper margin of cell sharply bent downwards at vein 8*; veins 7 and 6 well below the angle; upper discocellular considerably longer than lower; vein 5 much nearer 4 than 6, but not from close to bottom of cell; vein 3 well before end of cell, twice as far from 2 as from 4; vein 2 about equidistant from vein 3 and base of wing. Hind wing evenly rounded; vein 7 well before end of cell; discocellulars and vein 5 faint; vein 3 immediately before end of cell; vein 2 considerably nearer to end of cell than to base of wing. Hind tibiæ in the male only with terminal spurs, the ventral surface thickly set with short spines; the dorsal surface with a long fringe and also a long tuft of hairs attached near the proximal end.

* *johnstonii*, Butler.

Allied to *Kerana*.

Confined to Africa.

42. Genus ANCISTROIDES.

Ancistroides, Butler, Trans. Ent. Soc. 1874, p. 436.

Type, *longicornis*, Butler.

Antennæ very long; club slender, recurved, tip acuminate. Palpi as in *Kerana*. Fore wing: inner margin longer than outer margin; cell less than two-thirds the length of costa; vein 12 reaching costa before end of cell; middle discocellular quite twice as long as lower one; vein 5 from close to bottom of cell; vein 3 shortly before end of cell; vein 2 much nearer to base of wing than to vein 3. Hind wing evenly rounded; vein 7 shortly before end of cell; discocellulars and vein 5 barely traceable; vein 3 immediately before end of cell, many times farther from 2 than from 4; vein 2 nearer to end of cell than to base of wing. Hind tibiæ with two pairs of spurs and slightly clothed with short recumbent scales.

longicornis, Butler 1.

* *othonias*, Hew. 2.

This genus is nearest allied to *Kerana*, but differs from it markedly in the position of the median branches of both wings.

Longicornis is from Timor and *othonias* from Borneo.

43. Genus PIRDANA.

Pirdana, Distant, Rhop. Mal. p. 376 (1886).

Type, *hyela*, Hewitson.

Antennæ long; club slender, tip recurved, acuminate. Palpi: second joint densely scaled, third joint minute. Fore wing: inner and outer margins subequal; cell less than two thirds the length of costa: vein 12 reaching costa well before end of cell; upper discocellular minute, lower and middle discocellular inwardly oblique, the middle one considerably the longer; vein 3 very close to end of cell; veinlet in cell just beyond vein 3; vein 2 less than twice as far from end of cell as from base of wing. Hind wing: outer margin even, lobe inconspicuous; cell short, not reaching half across wing; vein 7 just before end of cell, more than three times as far from 8 as

from 6; discocellulars outwardly oblique; vein 5 wanting; vein 3 just before end of cell; vein 2 twice as far from base of wing as from end of cell. Hind tibiæ with two pairs of spurs.

* <i>hyela</i> , Hew.	1.
<i>ismene</i> , Feld.	2.

Confined to Southern Asia.

44. GENUS *PARDALEODES*.

Pardaleodes, Butl. Ent. Monthl. Mag. vii. p. 96 (1870).

Type, *edipus*, Cram.

Antennæ rather long; club slender, elongate, with a short recurved crook. Palpi: second joint densely scaled, third joint suberect, short, bluntly conical. Fore wing: inner margin longer than outer margin; cell less than two-thirds the length of costa; vein 12 reaching costa almost opposite the end of cell; vein 11 running very close to but not actually touching vein 12 for a portion of its length; middle discocellular half as long again as lower one; vein 5 considerably nearer to 4 than to 6; vein 3 shortly before end of cell, about twice as far from 2 as from 4; vein 2 slightly nearer to end of cell than to base of wing. Hind wing: outer margin evenly rounded; vein 7 shortly before end of cell; discocellulars and vein 5 very faint; vein 3 immediately before end of cell; vein 2 twice as far from base of wing as from end of cell. Hind tibiæ with two pairs of spurs. No secondary sexual characters on the wings.

<i>edipus</i> , Cram.	1.	|	<i>festus</i> , Mab.	3.
* <i>sator</i> , Doubl. Hew. ...	2.	|	<i>coanza</i> , Plötz	4.

Confined to Africa.

45. GENUS *CERATRICHIA*. (Plate III. fig. 24.)

Ceratrachia, Butler, Cat. Fabr. Lep. p. 274 (1869).

Type, *nothus*, Fabr.

Antennæ very long and slender, almost as long as the body; club slender, elongate, with a short terminal crook, tip acuminate. Palpi: third joint concealed in the clothing of second joint. Fore wing: inner margin longer than outer margin; cell less than two-thirds the length of costa; vein 12 reaching costa almost opposite the end of cell; middle discocellular about twice the length of lower one; vein 5 considerably nearer to 4 than to 6; vein 3 immediately before end of cell; vein 2 nearer to end of cell than to base of wing. Hind wing: outer margin even; vein 7 shortly before end of cell; discocellulars and vein 5 barely traceable; vein 3 immediately before end of cell; vein 2 twice as far from base of wing as from end of cell. Hind tibiæ with two pairs of spurs. No secondary sexual characters on wings of male.

<i>nothus</i> , Fabr.	1.	|	<i>phoeion</i> , Fabr.	4.
* <i>aretina</i> , Hew.	2.		* <i>flava</i> , Hew.	5.
<i>argyrosticta</i> , Plötz.	3.	|		

And two unidentified species.

This genus is confined to the African region.

46. Genus PLASTINGIA.

Plastingia, Butler, Ent. Mon. Mag. vol. vii. p. 95 (1870).Type, *flavescens*, Felder.

Antennæ long; club slender, with a recurved terminal crook, tip acuminate. Palpi well separated, second joint densely scaled, third joint minute, obtusely conical. Fore wing: outer margin considerably longer than inner margin; cell less than two-thirds length of costa; vein 12 reaching costa well before end of cell; discocellulars inwardly oblique; middle one considerably longer than lower; vein 5 considerably nearer to 4 than to 6; vein 3 well before end of cell; vein 2 close to base of wing, more than twice as far from end of cell as from base of wing; lower margin of cell slightly arched between veins 2 and 3. Hind wing slightly elongate, outer margin even; vein 7 well before end of cell, only slightly nearer to 6 than to 8; discocellulars faint; vein 5 not traceable; vein 3 well before end of cell, almost equidistant from 2 and 4; vein 2 considerably nearer to end of cell than to base of wing; lower margin of cell slightly angled at vein 2. Hind tibiæ with two pairs of spurs. No secondary sexual characters on wings of male.

<i>flavescens</i> , Felder	.....	1.		<i>*litrunia</i> , Hew.	.....	4.
{ <i>callineura</i> , Felder	.....	2.	|	<i>*vermiculata</i> , Hew.	.....	5.
{ <i>*latoia</i> , Hew.				<i>*tessellata</i> , Hew.	.....	6.
<i>helena</i> , Butler	.....	3.		{ <i>naga</i> , de N.		

And one unnamed species. *Tessellata* differs considerably in neurulation from the type and only doubtfully belongs to this genus.

Other species of the genus are *margherita*, Doherty, and *noemi*, de Nicéville.

This genus is confined to Southern Asia.

47. Genus LEREMA.

Lerema, Scudd. Syst. Rev. p. 61 (1872).Type, *accius*, Smith-Abb.

Antennæ: club robust, elongate, with a short terminal crook; second joint of palpi densely scaled; third joint erect, short, obtusely conical. Fore wing: outer margin considerably longer than inner margin; cell of fore wing less than two-thirds the length of costa; vein 12 reaching costa almost opposite the end of cell; middle discocellular more than twice as long as lower discocellular; vein 5 from close to bottom of cell; vein 3 well before end of cell, about three times as far from 2 as from 4; vein 2 considerably nearer to base of wing than to end of cell. Hind wing rather elongate, outer margin even; vein 7 shortly before end of cell; discocellulars very faint; vein 5 not traceable; veins 2, 3, and 4 all close together; vein 3 about twice as far from 2 as from 4; vein 2 considerably nearer to end of cell than to base of wing; lower margin of cell slightly angled at vein 2. Hind tibiæ with two pairs of spurs.

Male with a linear glandular streak on upperside of fore wing extending from the base of vein 3 as far as vein 1.

<i>accius</i> , Sm. Abb.	1.
<i>hianna</i> , Scudd.	2.

Confined to North America.

48. Genus PITHAURIA.

Pithauria, Moore, P. Z. S. 1878, p. 689. Type, *murdava*, Moore.

Pithauriopsis, W.-Mason & de Nicéville, Journ. As. Soc. Beng. 1886, p. 387. Type, *aitchisoni*, W. M. & de N.

Antennæ: club slender, elongate, with a rather long and very slender terminal crook. Palpi: second joint pressed close against face, third joint minute. Fore wing rather produced at apex, inner and outer margins subequal; cell less than two-thirds the length of costa; vein 12 reaching costa well before end of cell; upper discocellular minute, middle very long, lower very short; vein 5 from very close to bottom of cell; vein 3 equidistant from 2 and 4; vein 2 slightly nearer to end of cell than to base of wing. Hind wing elongated, outer margin even; cell short, not reaching half across wing; vein 7 shortly before end of cell, both veins curved at the bifurcation; discocellulars outwardly oblique; vein 5 not traceable; veins 2, 3, and 4 all very close together, the lower margin of the cell bent upwards at origin of vein 2. Hind tibiæ with two pairs of spurs.

In the male the fore coxæ are conspicuously tufted. The only differences between *Pithauria* and *Pithauriopsis* are that in the latter the male is furnished with a pair of glandular spots on the upperside of the fore wing between veins 1 and 2, and that at the bifurcation of vein 7 of the hind wing the veins composing the fork are more curved; this, however, is a character which for some unknown reason appears to occur in correlation with glandular patches or streaks on the fore wing. The female of *aitchisoni* has not been described, but will almost certainly be found to have the veins at the origin of vein 7 of the hind wing straight, so that vein 7 would arise at an acute angle.

<i>murdava</i> , Moore	1.
<i>stramineipennis</i> , Wood-Mason, de Nicéville	2.
<i>aitchisoni</i> , Wood-Mason, de Nicéville	3.

Confined to the Oriental region.

49. Genus NICONIADES.

Niconiades, Hübn. Exot. Schmett. ii. (1816 }
 -21). } Type, *xanthaphes*,
Goniloba, Westw. Gen. Diurn. Lep. p. 512. } Hübn.
 (1852).

Antennæ rather long; club slender, elongated, with a slender elongated crook. Palpi: second joint densely scaled, pressed close against the face, third joint erect, minute, bluntly pointed. Fore

wing: outer margin longer than inner margin; cell less than two-thirds the length of costa; vein 12 reaching costa almost opposite the end of cell; discocellulars inwardly oblique, middle one very much longer than the lower one; vein 5 very close to bottom of cell; vein 3 shortly before end of cell; vein 2 considerably nearer to base of wing than to end of cell. Hind wing very elongate; vein 7 shortly before end of cell; vein 3 shortly before end of cell, about twice as far from 2 as from 4; vein 2 considerably nearer to end of cell than to base of wing. Hind tibiæ with two pairs of spurs.

In the male there are three short longitudinal glandular streaks on the upperside of the fore wing, one in the fork of vein 2, the second immediately below vein 2, and the third immediately above vein 1.

xanthaphes, Hübn. 1.
**cydia*, Hew. 2.

Confined to tropical America.

50. Genus COBALUS.

Cobalus, Hübn. Verz. p. 115 (1816). Type, *virbius*, Cram.

Antennæ: club moderate, with a long slender terminal crook. Palpi: second joint very densely scaled, pressed close against the face, third joint minute, obtusely conical. Fore wing: inner margin longer than outer margin; cell less than two-thirds the length of costa; vein 12 reaching costa before end of cell; middle discocellular inwardly oblique, many times longer than the lower one; vein 5 close to bottom of cell; vein 3 shortly before end of cell; vein 2 almost equidistant from end of cell and base of wing. Hind wing rather produced on subcostal area; outer margin excised between veins 3 and 1*b*; vein 7 well before end of cell; veins 2, 3, and 4 all close together, vein 3 about twice as far from 2 as from 4; vein 2 considerably nearer to end of cell than to base of wing. Hind tibiæ with two pairs of spurs.

No secondary sexual characters on wings of male.

virbius, Cram. 1.
**physcelia*, Hew. 2.

And an unidentified species.

Confined to South America.

51. Genus LYCHNUCHUS.

Lychnuchus, Hübner, Zutr. iii. p. 24 (1825). Type, *olenus*, Hübn.

Antennæ: club moderate, elongate, terminal crook rather long and slender. Palpi: second joint densely scaled, pressed close against the face, the third joint entirely concealed. Fore wing: costa slightly arched at base, then straight to apex; inner and outer margins subequal; cell less than two-thirds the length of costa; vein 12 reaching costa shortly before end of cell; middle discocellular considerably longer than lower one; vein 5 from close to bottom of cell; vein 3 well before end of cell; vein 2 more

than twice as far from end of cell as from base of wing in the male of the type species, rather farther removed from base in the female of the type and in both sexes of the other species. Hind wing: outer margin excised between veins 3 and 1*b*; vein 7 well before end of cell, only slightly nearer to 6 than to 8; discocellulars faint; vein 5 wanting; vein 3 close to end of cell, about twice as far from 2 as from 4; vein 2 considerably nearer to end of cell than to base of wing; lower margin of cell slightly angled at vein 2, more conspicuously at vein 3. In the male of the type species there are two linear streaks of modified scales on the upperside of the fore wing at the origin of vein 2, running for a short distance along vein 2 and the lower margin of the cell respectively.

<i>olenus</i> , Hübn.	1.
* <i>ozias</i> , Hew.	2.

The *olenus* of Hübner appears to be identical with *celsus*, Fabr. Confined to South America.

52. Genus CARYSTUS.

Carystus, Hübn. Verz. p. 114 (1816). Type, *jolus*, Cram.

Antennæ rather short; club robust, elongate, with a long terminal crook. Palpi: third joint almost entirely concealed in the clothing of the second joint. Fore wing produced at apex, inner margin longer than outer margin; cell less than two-thirds the length of costa; vein 5 considerably nearer to 4 than to 6; vein 3 shortly before end of cell. Hind wing: outer margin even, excised between veins 3 and 1*b*; vein 7 well before end of cell; discocellulars faint, vein 5 barely traceable; vein 3 from end of cell; vein 2 more than twice as far from base of wing as from end of cell. Hind tibiæ with two pairs of spurs.

<i>jolus</i> , Cram.	1.	* <i>marpesia</i> , Hew.	4.
<i>claudianus</i> , Latr. ...	2.	* <i>hursa</i> , Hew.	5.
<i>phorcus</i> , Cram.	3.		

And three unidentified species.

Confined to Central and South America.

53. Genus LOTONGUS.

Lotongus, Dist. Rhop. Mal. p. 371 (1886). Type, *calathus*, Hew.

Antennæ of moderate length, with a long terminal crook. Fore wing: inner and outer margins subequal; cell less than two-thirds the length of costa; middle discocellular considerably longer than lower one; vein 3 close to end of cell; vein 2 nearer to base of wing than to end of cell, almost equidistant from vein 3 and base of wing. Hind wing: outer margin even; vein 7 well before end of cell; discocellulars and vein 5 faint; vein 3 immediately before end of cell; vein 2 considerably nearer to end of cell than to base of wing. Hind tibiæ with two pairs of spurs.

**calathus*, Hew.

Habitat. Sumatra.

54. Genus *THRACIDES*.

Thracides, Hübn. Verz. p. 105 (1816). Type, *phidon*, Cram.

Antennæ: club elongate, with a long slender terminal crook. Palpi: second joint densely scaled, pressed close against the face; third joint almost entirely concealed, bluntly conical. Fore wing: inner margin longer than outer margin; cell less than two-thirds the length of costa; vein 12 reaching costa almost opposite end of cell; middle discocellular very oblique, lower very short: vein 5 from close to bottom of cell; vein 3 shortly before end of cell; vein 2 almost equidistant from base of wing and end of cell. Hind wing rather elongate, anal angle slightly lobate; vein 7 well before end of cell; discocellulars outwardly oblique: vein 3 close to end of cell, twice as far from 2 as from 4; vein 2 considerably nearer to end of cell than to base of wing; upper margin of cell bent downwards at vein 7; lower margin of cell slightly angled at vein 2, more conspicuously at vein 3. Hind tibiæ with a dense fringe and two pairs of spurs.

Male with a very inconspicuous linear discal stigma on the upper-side of fore wing, from just before origin of vein 3 to as far as the submedian, usually more or less incomplete.

<i>phidon</i> , Cramer	..... 1.	<i>*ciacia</i> , Hew.	..... 4.
<i>*cilissa</i> , Hew.	..... 2.	<i>*brasia</i> , Hew.	..... 5.
<i>*nanea</i> , Hew.	..... 3.		

There is an undescribed genus closely allied to *Thracides*, including *telmela*, Hew., *cloanthus*, Latr., and others, which appear to mimic species of *Pyrrhopyge*.

Confined to tropical America.

55. Genus *TALIDES*.

Talides, Hübn. Verz. p. 106 (1816). Type, *sergestus*, Cram.

Antennæ and palpi as in *Perichares*. Fore wing differs from *Perichares* in not being so much produced apically, in the outer and inner margins being subequal, and in vein 3 being very much nearer to the end of the cell. Hind wing as in *Perichares* but less elongate, being more produced in the subcostal area. Hind tibiæ and femora less densely fringed than in *Perichares*, and the upper pair of spurs are very short. Linear stigma on fore wing of male as in *Perichares*.

<i>sergestus</i> , Cram.	..... 1.	<i>*chiomara</i> , Hew.	..... 4.
<i>sinon</i> , Cram.	..... 2.	<i>*cerymica</i> , Hew.	..... 5.
<i>*eudega</i> , Hew.	..... 3.		

Confined to tropical America.

56. Genus *PERICHARES*.

Perichares, Scudd. Syst. Rev. p. 60 (1872). Type, *corydon*, Fabr.

Antennæ: club robust, elongated, with a long terminal crook; second joint of palpi very densely scaled, the third joint almost entirely concealed. Fore wing produced at apex, outer margin very much longer than inner margin; cell less than two-thirds the

length of costa; vein 5 considerably nearer to 4 than to 6; vein 3 well before end of cell; vein 2 almost equidistant from vein 3 and base of wing. Hind wing elongate, outer margin even; vein 7 well before end of cell; discocellulars faint, vein 5 not traceable; vein 3 immediately before end of cell; vein 2 twice as far from base of wing as from end of cell; lower margin of cell angled at vein 2. Hind tibiæ with two pairs of spurs. There is a very dense fringe on the hind tibiæ and femora and also on the middle femora.

Male with a linear discal stigma extending from the base of vein 3 to as far as vein 1.

corydon, Fabr. 1.
fulvifargo, Butler..... 2.

Confined to tropical America.

57. Genus *UNKANA*.

Unkana, Dist. Rhop. Mal. p. 369 (1886). Type, *batara*, Dist.

Antennæ long; club moderate, elongated, with a long terminal crook. Palpi: second joint densely scaled, third joint almost concealed. Fore wing produced at apex, outer margin considerably longer than inner margin; cell of fore wing less than two-thirds the length of costa; discocellulars inwardly oblique; vein 5 considerably nearer to 4 than to 6, but not from close to bottom of cell (except in *elia*); vein 3 well before end of cell; vein 2 almost equidistant from vein 3 and base of wing. Hind wing produced in the sub-costal area, outer margin even, conspicuously excised between veins 3 and 1b; vein 7 well before end of cell; discocellulars and vein 5 very faint; vein 3 well before end of cell, about twice as far from 2 as from 4; vein 2 considerably nearer to end of cell than to base of wing. Hind tibiæ with two pairs of spurs.

<i>batara</i> , Dist.	1.	<i>semamora</i> , Moore ...	4.
* <i>attina</i> , Hew.	2.	<i>watsonii</i> , de Nicév. ...	5.
* <i>elia</i> , Hew.	3.		

It seems very doubtful if all the above are congeneric. There are no sexual characters on the wings of *batara*, *attina*, or *watsonii*. In the male of *elia* there is a short discal stigma on the upperside of the fore wing extending from the base of vein 3 to just beyond vein 2, and there is also a tuft of hairs on the underside of the fore wing at the origin of vein 1; in *semamora* there is no discal stigma but there is a tuft of hairs similarly situated to that of *elia*. *Semamora*, *watsonii*, and *elia* all differ slightly in neuration from *batara*, and the two former also differ in the crook to the antennæ being very short. All these species, however, seem to be conveniently included under *Unkana* for the present.

Is *batara* identical with *cruda*, H.-S.?

Confined to the Oriental region.

58. Genus *HIDARI*.

Hidari, Dist. Rhop. Mal. p. 395 (1886). Type, *irava*, Moore.

Antennæ long; club robust, elongated, with a long terminal crook. Palpi: second joint very densely scaled, third joint almost entirely

concealed. Fore wing: outer margin longer than inner margin; cell less than two-thirds the length of costa; discocellulars inwardly oblique; vein 5 from close to bottom of cell; vein 3 well before end of cell; vein 2 almost equidistant from end of cell and base of wing. Hind wing slightly lobate, outer margin even; vein 7 well before end of cell: discocellulars and vein 5 faint; veins 2, 3, and 4 all close together; vein 3 almost equidistant from 2 and 4; vein 2 more than twice as far from base of wing as from end of cell. Hind tibiæ with two pairs of spurs, the upper pair short.

irava, Moore. }
**hypæpa*, Hew. }

Confined to the Oriental region.

59. Genus PTEROTEINON, nov.

Tanyptera, Mabille, Bull. Soc. Zool. France, p. 260 (1877),
 nom. præoc.

Type, *laufella*, Hewitson.

Antennæ: club rather robust, about one-third the length of shaft, bent at about a right angle, terminal portion short, about half the length of remainder of club. Palpi: second joint thickly scaled, third joint minute. Fore wing: outer margin longer than inner margin; vein 12 reaching costa before end of cell: veins 6 and 7 from upper end of cell; upper discocellular non-existent; middle discocellular inwardly oblique, angled at its lower end; lower discocellular very short, about half the length of middle one; vein 3 near end of cell, about five times as far from base of wing as from end of cell; vein 2 equidistant from base of wing and from vein 3; veinlet in cell just before vein 4. Hind wing: lobe inconspicuous; vein 7 twice as far from base of wing as from end of cell; discocellulars outwardly oblique; vein 5 well developed; vein 3 just before end of cell; vein 2 three times as far from base of wing as from end of cell. Hind tibiæ with two pairs of spurs, and with a double fringe of densely set setæ.

**laufella*, Hew.

Confined to Africa.

Synopsis of Genera of PAMPHILINÆ.

Section C.

a. Vein 5 of hind wing well developed.

a'. Vein 3 of hind wing immediately before end of cell.

a². Club of antennæ longer than shaft.

ISMENE, Swainson. Type, *odipodea*, Swains. (1)

b². Shaft of antennæ longer than club.

a³. Vein 1 of fore wing distorted downwards near base,

HASORA, Moore. Type, *badra*, Moore. (2)

b³. Vein 1 of fore wing not distorted near base.

BIBASIS, Moore. Type, *sena*, Moore. (3)

b'. Vein 3 of hind wing well before end of cell.

BADAMIA, Moore. Type, *exclamationis*, Fabr. (4)

b. Vein 5 of hind wing wanting.

RHOPALOCAMPTA, Wallgr. Type, *forestan*, Cram. (5)

1. Genus ISMENE.

(Plates I. figs. 14, 15, 16; II. figs. 11, 12; III. fig. 18.)

Ismene, Swainson, Zool. Ill. vol. i. pl. 16 (1820-21).Type, *œdipodea*, Swainson.

Antennæ: club very robust, about twice as long as shaft, terminal portion tapering to a fine point and curved into a crescent, never bent into a hook. Palpi as already characterized. Fore wing: inner and outer margins subequal; cell slightly more than half the length of costa; vein 12 reaching costa almost opposite end of cell; vein 5 equidistant from 4 and 6; upper discocellular minute, middle and lower discocellulars subequal, almost erect; vein 3 three times as far from base of wing as from end of cell; vein 2 three times as far from end of cell as from base of wing. Hind wing: cell very short, only reaching about one-third across wing; vein 7 twice as far from 8 as from 6; discocellulars very faint, slightly outwardly oblique; vein 5 well developed; vein 3 just before end of cell; outer margin sinuate but not distinctly lobed. Hind tibiæ slightly fringed, and with two pairs of spurs. The above diagnosis is from a Javan female of typical *œdipodea*, and applies to the females of all other species of the genus.

In the males of all the species the hind tibiæ are much swollen, and have a long tuft of hairs affixed near the proximal end on the upperside, beneath which, along their outer edge, they are clothed with large rounded scales. This character is most fully developed in *mahintha*, and least of all in *harisa*, the other species showing a gradual transition between the two.

In typical *œdipodea* the male has a very prominent rounded patch of appressed scales on the upperside of the fore wing, owing to which the lower margin of the cell is strongly curved upwards, and vein 3 arises near the base of the wing and very close to vein 2. On the hind wing vein 8 is very short, and runs upwards to the costa at a short distance from the base, and, just beyond it, the costal margin is folded over on the upperside. Vein 7 is much as in the female, but vein 6 is strongly curved downwards. The folding over of the costal margin on the upperside gives the wing, as seen from beneath, the appearance of being strongly arched at base and then cut away obliquely to just beyond vein 7.

The above characters occur only in males of typical *œdipodea* from Java and Borneo. In the Indian species, which has hitherto been considered to be identical with *œdipodea* and which I propose to rename *ataphus*, the veins of the fore wing are distorted as in *œdipodea*; but the costa of the hind wing is not folded over, and the neuration of that wing is much as in the female.

The other species of the genus vary considerably in the male mark of the fore wing, which is sometimes very prominent and sometimes entirely absent, and there is also considerable variation in the distortion of the veins of the fore wing. However, the character of the swollen hind tibiæ is invariably present and the females are inseparable, so I have considered it very inadvisable to form new

genera on the male characteristics alone, and subjoin a key to the species of the genus in the collection of the British Museum.

A. Male, costa of hind wing folded over.

- a. Male, conspicuous rounded patch of androconia on the fore wing; vein 3 of fore wing close to base of cell *ædipodea*, Swains. 1.

B. Male, costa of hind wing not folded over.

- a. Male, vein 3 of fore wing close to base of cell.

- a'. Male, conspicuous rounded patch of androconia on fore wing **ataphus*, n. sp. 2.

- b'. Male, inconspicuous rounded patch of androconia on fore wing **amara*, Moore 6.

- b. Male, vein 3 of fore wing about equidistant from end and base of cell.

- a'. Male, with a rounded patch of androconia on fore wing *jaina*, Moore 3.

- fergusonii*, de Nicéville . 4.

- b'. Male, with linear streaks of androconia along median branches of fore wing ... **striata*, Hew. 7.

- c. Male, vein 3 of fore wing close to end of cell.

- a'. Male, rounded patch of androconia on fore wing **iluska*, Hew. 5.

- b'. Male, linear streaks of androconia on fore wing *makintha*, Moore 8.

- c'. Male, no patch or streaks of androconia on fore wing **etelka*, Hew. 9.

- *vasutana*, Moore 10.

- anadi*, de Nicéville ... 11.

- harisa*, Moore 12.

- gomata*, Moore 13.

- aquilina*, Speyer 14.

- jankowskii*, Oberthür.

- *chrysægla*, Butler.

The species are numbered in what would appear to be their most natural order. The females of all the species have vein 3 of the fore wing close to the end of the cell, as in the last group of the males.

This genus is confined to the Oriental region, China and Japan.

ISMENE ATAPHUS, n. sp.

Ismene ædipodea, Moore (nec Swainson), Lep. Ceyl. vol. i. p. 158, pl. 64. figs. 2, 2 a, 2 b (1881).

This species is the Indian representative of the Sumatran *ædipodea*, with which it has hitherto been confounded. The male differs from that of *ædipodea* in the costal margin of the hind wing being normal, whereas in *ædipodea* the costal margin is folded over and the costal vein is correlatively distorted. The female has a costal red streak on the upperside of the fore wing which is entirely absent in the female of *ædipodea*. Furthermore, in both sexes of *ædipodea* the thorax and base of wings are conspicuously clothed with long silvery greenish-blue scales; in *ataphus* this clothing is of a duller green and of less extent, especially on the wings. The cilia of the hind wings are also much longer and redder in *ataphus* than in *ædipodea*.

The present species is represented in the British Museum from Ceylon and Silhet, and it also occurs in Hong Kong.

Edipodea is in the British Museum from Java, Borneo, and Macassar.

2. Genus HASORA. (Plate II. figs. 1, 2.)

Hasora, Moore, Lep. Ceyl. vol. i. p. 159 (1881).

Type, *badra*, Moore.

Parata, Moore, Lep. Ceyl. vol. i. p. 160 (1881).

Type, *chromus*, Moore.

Antennæ: club thickening rather abruptly and gradually tapering to a fine point, bent beyond the thickest portion, usually at about a right angle, but sometimes almost into a hook; the terminal portion not quite so long as the remainder of the club. Fore wing: inner and outer margins subequal; cell less than two-thirds the length of costa; vein 12 reaching costa almost opposite upper angle of cell; vein 5 nearer to 6 than to 4; upper discocellular minute; middle and lower discocellulars inwardly oblique and in the same straight line; vein 3 almost equidistant from base of wing and from end of cell; vein 2 nearer to base of wing than to vein 3; vein 1 distorted downwards near base. Hind wing produced into a lobe; vein 7 slightly nearer to 6 than to 8; discocellulars very faint, outwardly oblique; vein 5 well developed, much nearer to 6 than to 4; vein 3 from just before end of cell; vein 2 about equidistant from base of wing and from end of cell. Hind tibiæ not very densely fringed, and with two pairs of spurs.

The female differs in vein 3 of the fore wing being three times as far from base of wing as from end of cell.

The type-species of *Parata* differs from the type-species of *Hasora* in being provided in the male with an oblique discal stigma on the fore wing, and also in some slight differences in the outline of the wings. These two characters, however, exist together only in the type-species of *Parata*, and we find other species with the discal streak of *Parata* and the outline of *Hasora*, or *vice versa*, while the streak itself appears in every degree of intensity, being sometimes very prominent and at other times barely traceable or altogether absent, the females in all the species being structurally inseparable.

The species represented in the British Museum are divided below into two groups, based on the degree of prominence of the sexual streak, and are numbered in what appears to be their most natural order, which it will be seen does not agree at all with the divisions founded on their sexual brand.

Of *atrox*, *bilunata*, and *lugubris* there are only females in the British Museum; of these the two former probably have a discal stigma in the male, and the last seems very possibly to be the female of *celænus*.

Other species of the genus are *anura*, de Nicéville, and *hadria*, de Nicéville, both from India, and there are five unidentified species in the British Museum, most of which are probably undescribed.

This genus is represented in the British Museum from throughout India, Malaysia, the Philippines, Fiji, New Guinea, and Australia.

A. Male with sexual streak inconspicuous or absent.

<i>badra</i> , Moore	1.	<i>discolor</i> , Feld.	11.
<i>thridas</i> , Boisd.	3.	<i>doleschallia</i> , Feld.	14.
<i>vitta</i> , Butl.	6.	* <i>myra</i> , Hew.	18.
<i>coulteri</i> , de Nicév.	7.		

B. Male with sexual streak conspicuous.

* <i>atrox</i> , Butl.	2.	<i>celævus</i> , Cram.	12.
<i>chromus</i> , Cram.	4.	<i>lugubris</i> , Boisd.	13.
<i>alexis</i> , Fabr.	5.	* <i>chuza</i> , Hew.	15.
<i>malayana</i> , Feld.	8.	<i>schænherri</i> , Laur.	16.
* <i>bilunata</i> , Butl.	9.	{ <i>gentiana</i> , Feld.	17.
<i>hurana</i> , Butl.	10.	{ * <i>saida</i> , Hew.	

3. Genus BIBASIS.

Bibasis, Moore, Lep. Ceyl. vol. i. p. 160 (1881).

Type, *sena*, Moore.

Antennæ much as in *Hasora*, but the terminal portion of club usually much more hooked. Fore wing: male without costal fold or discal stigma; outer margin longer than inner margin; cell only slightly more than half the length of costa; vein 12 reaching costa almost opposite upper angle of cell; vein 5 slightly nearer to 6 than to 4; upper discocellular minute; middle and lower discocellulars subequal, almost erect, and in the same straight line; vein 3 three times as far from base of wing as from end of cell, more than twice as far from 2 as from 4; vein 2 three times as far from end of cell as from base of wing. Hind wing not so broad as in *Hasora*; lobe less conspicuous; vein 7 nearer to 6 than to 8; discocellulars faint, slightly outwardly oblique, the lower the longer; vein 5 well developed; vein 3 just before end of cell; vein 2 nearer to end of cell than to base of wing. Hind tibiæ not fringed but thickly scaled above, and with two pairs of spurs.

There is only one described species in this genus, which is recorded from India, Ceylon, and Java.

**sena*, Moore.

4. Genus BADAMIA.

Badamia, Moore, Lep. Ceyl. vol. i. p. 156 (1881).

Type, *exclamationis*, Fabr.

Antennæ short, hardly half the length of costa; club moderate, usually bent into a hook, sometimes only at right angles, tapering to a point. Fore wing without discal stigma; outer and inner margins subequal; cell very long and narrow, more than two-thirds the length of costa; vein 12 reaching the costa before end of cell; vein 5 equidistant from 4 and 6; upper discocellular minute, lower

and middle discocellulars subequal, inwardly oblique, and in the same straight line; vein 3 three times as far from base of wing as from end of cell; vein 2 twice as far from 3 as from base of wing. Hind wing excavated at vein 2 and produced into a prominent lobe; vein 7 nearer to 6 than to 8; middle discocellular slightly outwardly oblique, and lower slightly inwardly oblique; vein 5 well developed; vein 3 well before end of cell; vein 2 about equidistant from end of cell and base of wing. Hind tibiæ fringed, and with two pairs of spurs.

The type species, which is the sole representative of the genus, is of very wide distribution, the series in the British Museum being from localities ranging from Australia to the N.W. Himalayas.

5. Genus RHOPALOCAMPTA. (Plate I. fig. 13.)

Rhopalocampta, Wallengren, Rhop. Caffr. p. 47 (1857).

Type, *forestan*, Cram.

Choaspes, Moore, Lep. Ceyl. vol. i. p. 158 (1881).

Type, *benjamini*, Guérin.

Antennæ: club moderate, about as long as shaft, crescent-shaped, not bent into a hook, very similar to those of *Ismene*, but less robust and with a longer shaft. Fore wing: no discal brand in male; inner and outer margins subequal; cell just more than two-thirds the length of costa; vein 12 reaching costa before end of cell; vein 5 nearer to 6 than to 4; upper discocellular minute; lower and middle discocellulars almost erect and in the same straight line, the lower the longer; vein 3 three times as far from base of wing as from end of cell. Hind wing produced into a lobe; vein 7 twice as far from 8 as from 6; discocellulars very faint, almost erect; vein 5 wanting; vein 3 from just before end of cell; vein 2 nearer to base of wing than to end of cell. Hind tibiæ with two pairs of spurs, and furnished in the male with a long tuft of hairs attached close to the proximal end, and reaching well beyond the distal end of the tibia.

This genus is confined almost entirely to Africa and the Malay Archipelago, *benjamini* alone being found in India, China, and Japan, while the range of *anchises* extends to Aden.

{ <i>benjamini</i> , Guérin	1.	{ <i>pisistratus</i> , Fabr.	10.
<i>japonica</i> , Murray		<i>valmaran</i> , Wallgr.	
<i>subcaudata</i> , Felder	2.	<i>*fervida</i> , Butl.	11.
<i>ramanatek</i> , Boisd.	3.	<i>keithloa</i> , Wallgr.	12.
<i>libeon</i> , Druce	4.	<i>stella</i> , Trim.	
<i>*juvenda</i> , Butler	5.	<i>ratek</i> , Boisd.	13.
<i>*pansa</i> , Hew.	6.	<i>bixæ</i> , Linn.	14.
<i>anchises</i> , Gerst.	7.	<i>chalybe</i> , West.	15.
<i>taranis</i> , Hew.		<i>juno</i> , Plötz	16.
<i>forestan</i> , Cram.	8.	<i>iphis</i> , Drury	17.
<i>arbagastes</i> , Guén.	9.	<i>jupiter</i> , Fabr.	
<i>*margarita</i> , Butl.		<i>hanno</i> , Plötz	18.

The following genera, of which the types are not in the British Museum, I have been unable to identify:—

ÆTHEIUS, Hbn. Verz. 109 (1816) ..	Type, <i>archytas</i> , Stoll.
AIDES, Billb. Enum. Ins. 81 (1820) .	Type, <i>epitus</i> , Cram.
ALERA, Mab. C. R. Soc. Ent. Belg. lxxxiv. (1891)	Type, <i>furcata</i> , Mab.
CALLIMORMUS, Sc. Syst. Rev. 53 (1872)	Type, <i>juventus</i> , Sc.
CHORANTHUS, Sc. Syst. Rev. 58 (1872)	Type, <i>radians</i> , Lef.
CHORISTONEURA, Mab. Bull. Soc. Ent. Fr. (6) ix. p. clvi (1889)	Type, <i>apicalis</i> , Mab.
CÆLIADES, Hbn. Verz. 106 (1816) ..	Type, <i>dubius</i> , Cram.
CORONE, Mab. Pet. Nouv. p. 205 (1878)	Type, <i>ismenoides</i> , Mab.
CYMENES, Sc. Syst. Rev. 61 (1872).	Type, <i>tripuncta</i> , H.-S.
ENOSIS, Mab. Bull. Soc. Ent. Fr. (6) ix. p. ix (1889)	Type, <i>dognini</i> , Mab.
EXOMETÆCA, Meyr. P. Linn. Soc. N. S. W. (2) ii. p. 833	Type, <i>nycteris</i> , Meyr.
GARGA, Mab. Le Nat. ii. p. 216 (1889)	Type, <i>olena</i> , Mab.
HEMIPTERIS, Mab. Le Nat. ii. p. 216 (1889)	Type, <i>fumida</i> , Mab.
NARGA, Mab. C. R. Soc. Ent. Belg. p. lxx (1891)	Type, <i>chiriquensis</i> , Mab.
NERULA, Mab. Le Nat. ii. p. 255 (1888)	Type, <i>nautes</i> , Mab.
NYCTUS, Mab. C. R. Soc. Ent. Belg. p. cxiv (1891)	Type, <i>crinitus</i> , Mab.
OARISMA, Sc. Syst. Rev. p. 54 (1872)	Type, <i>poweshiek</i> , Pack.
PRAXIS, Mab. Le Nat. ii. p. 25 (1889)	Type, <i>quadrata</i> , Mab.
PACHYNEURIA, Mab. Le Nat. ii. p. 275 (1888)	Type, <i>obscura</i> , Mab.
PLESIOCERA, Mab. C. R. Soc. Ent. Belg. p. cvi (1891)	Type, <i>filipalpis</i> , Mab.
{ PLOETZIA, Saal. Müll. Lep. Mad. i. p. 115 (1884)	Type, <i>amygdalis</i> , Mab.
{ SYSTOLE, Mab. Léop. Mad. i. p. 330 (1885)	Type, <i>amygdalis</i> , Mab.
POTANTHUS, Sc. Syst. Rev. 54 (1872)	Type, <i>omaha</i> , Edw.
PRENES, Sc. Syst. Rev. 60 (1872) ..	Type, <i>panoquin</i> , Sc.
STETHOTRIX, Mab. Bull. Soc. Ent. Fr. (6) ix. p. clxxxiv (1889)	Type, <i>heterogyna</i> , Mab.
TOXIDIA, Mab. C. R. Soc. Ent. Belg. p. lxxx (1891)	Type, <i>thyrrhus</i> , Mab.
ZEA, Dist. Rhop. Mal. p. 377 (1886).	Type, <i>mytheca</i> , Hew.

The genus *Helias*, subsequently renamed *Achna*, has not been included above, as its type species is unknown.

EXPLANATION OF THE PLATES.

PLATE I.

Fig. 1. *Ardaris eximia* (showing veins numbered), p. 13.

2. *Pyrrhopyge charybdis*, p. 11.
3. *Microceris varicolor*, p. 15.
4. *Epargyreus tityrus*, p. 23.
5. *Phocides pigmalion*, p. 21.
6. *Tarsoctenus papias*, p. 21.
7. *Phanus vitreus*, p. 40.
8. *Anisochoria albiplaga*, p. 59.
9. *Tagiades flesus*, p. 53.
10. *Eantis busiris*, p. 57.
11. *Hesperia malvæ*, p. 64.
12. *Caprona ransonnetii*, p. 62.
13. *Rhopalocampta forestan*, p. 129.
14. *Ismene ædipodea*, ♂, p. 125.
15. *Ismene ataphus*, ♂, p. 125.
16. *Ismene ataphus*, ♀, p. 125.

PLATE II.

Fig. 1. *Hasora badra*, ♂, p. 127.

2. ———, ♀, p. 127.
3. *Halpe moorei*, ♂, p. 108.
4. ———, ♀, p. 108.
5. *Onryza meiktila*, ♂, p. 112.
6. *Angiades sylvanus*, ♀, p. 103.
7. *Telesto perronii*, ♂, p. 73.
8. *Koruthaiatos hector*, p. 76.
9. *Sancus pulligo*, ♂, p. 87.
10. *Cyclopides metis*, p. 90.
11. *Ismene mahintha*, ♂ (hind leg $\times 2$), p. 125.
12. *Ismene ædipodea*, ♂ (hind leg $\times 2$), p. 125.
13. *Tarsoctenus corytas*, ♂ (hind leg $\times 2$), p. 21.
14. *Eantis busiris*, ♂ (hind leg $\times 2$), p. 57.
15. *Chrysoplectrum otriades*, ♂ (hind leg $\times 2$), p. 24.
16. *Æthilla eleusinia*, ♂ (hind leg $\times 2$), p. 37.

PLATE III.

Fig. 1 a, b. *Pyrrhopyge charybdis* (antenna and palpi $\times 2$), p. 11.

2. *Phocides pigmalion* (antenna and palpi $\times 2$), p. 21.
3. *Eudamus proteus* (antenna and palpi $\times 2$), p. 20.
4. *Plestia dorus* (antenna and palpi $\times 2$), p. 21.
5. *Æthilla eleusinia* (antenna and palpi $\times 2$), p. 37.
6. *Phaniceps beata* (antenna and palpi $\times 2$), p. 30.
7. *Bungalotus midus* (antenna and palpi $\times 1\frac{1}{2}$), p. 28.
8. *Dyscopus sculdaus* (antenna and palpi $\times 2$), p. 27.
- 9 a, b. *Entheus talaus* (antenna and palpi $\times 2$), p. 40.
- 10 a, b. *Anisochoria albiplaga* (antenna and palpi $\times 2$), p. 59.
11. *Tagiades flesus* (antenna and palpi $\times 2$), p. 53.
- 12 a, b. *Camptopleura theramensis* (antenna and palpi $\times 2$), p. 55.
- 13 a, b. *Mycteris cæcula* (antenna and palpi $\times 2$), p. 56.
14. *Cyclopides metis* (antenna and palpi $\times 2$), p. 90.
15. *Caprona pillana* (antenna and palpi $\times 2$), p. 62.
16. *Abantis tettensis* (antenna and palpi $\times 2$), p. 63.
- 17 a, b. *Eantis busiris* (antenna and palpi $\times 2$), p. 57.
- 18 a, b. *Ismene ædipodea* (antenna and palpi $\times 2$), p. 125.
19. *Hesperia malvæ* (antenna and palpi $\times 3$), p. 64.
20. *Taractroceru mævius* (antenna and palpi $\times 3$), p. 94.
21. *Butleria dimidiatus* (antenna and palpi $\times 2$), p. 79.

- Fig. 22. *Telesto perronii* (antenna and palpi $\times 2$), p. 73.
 23. *Motasingha dirphia* (antenna and palpi $\times 2$), p. 73.
 24. *Ceratrichia phocion* (antenna and palpi $\times 2$), p. 117.
 25 a, b. *Iambrix salsala* (antenna and palpi $\times 2$), p. 76.
 26 a, b. *Apastus menes* (antenna and palpi $\times 2$), p. 96.
 27 a, b. *Adopæa thaumas* (antenna and palpi $\times 2$), p. 98.
 28. *Baoris oceia* (antenna and palpi $\times 2$), p. 106.
 29. *Parnara mathias* (antenna and palpi $\times 2$), p. 105.
 30. *Gegenes nostradamus* (antenna and palpi $\times 2$), p. 104.

2. Descriptions of New Species of Dipterous Insects of the Family *Syrphidæ* in the Collection of the British Museum, with Notes on Species described by the late Francis Walker.—Part I. BACCHINI and BRACHYOPINI. By E. E. AUSTEN, Zoological Department, British Museum.

[Received December 2, 1892.]

(Plates IV. & V.)

The following is intended to be the first of a series of papers on the *Syrphidæ* in the Collection of Diptera in the British Museum. For some time past I have been engaged in working on these Insects, and it was my original intention not to publish anything upon the subject until the re-arrangement of the Family had been completed. But since it has been urged upon me that a saving of time is effected by writing about a group while it is fresh in one's memory, I have decided to begin the preparation of these papers at once. This is the reason why I have commenced in the middle of the Family.

Appended is a list of the species now to be described, with their habitats.

Ethiopian Region.

Rhingia semi-cærulea, p. 162 Sierra Leone.

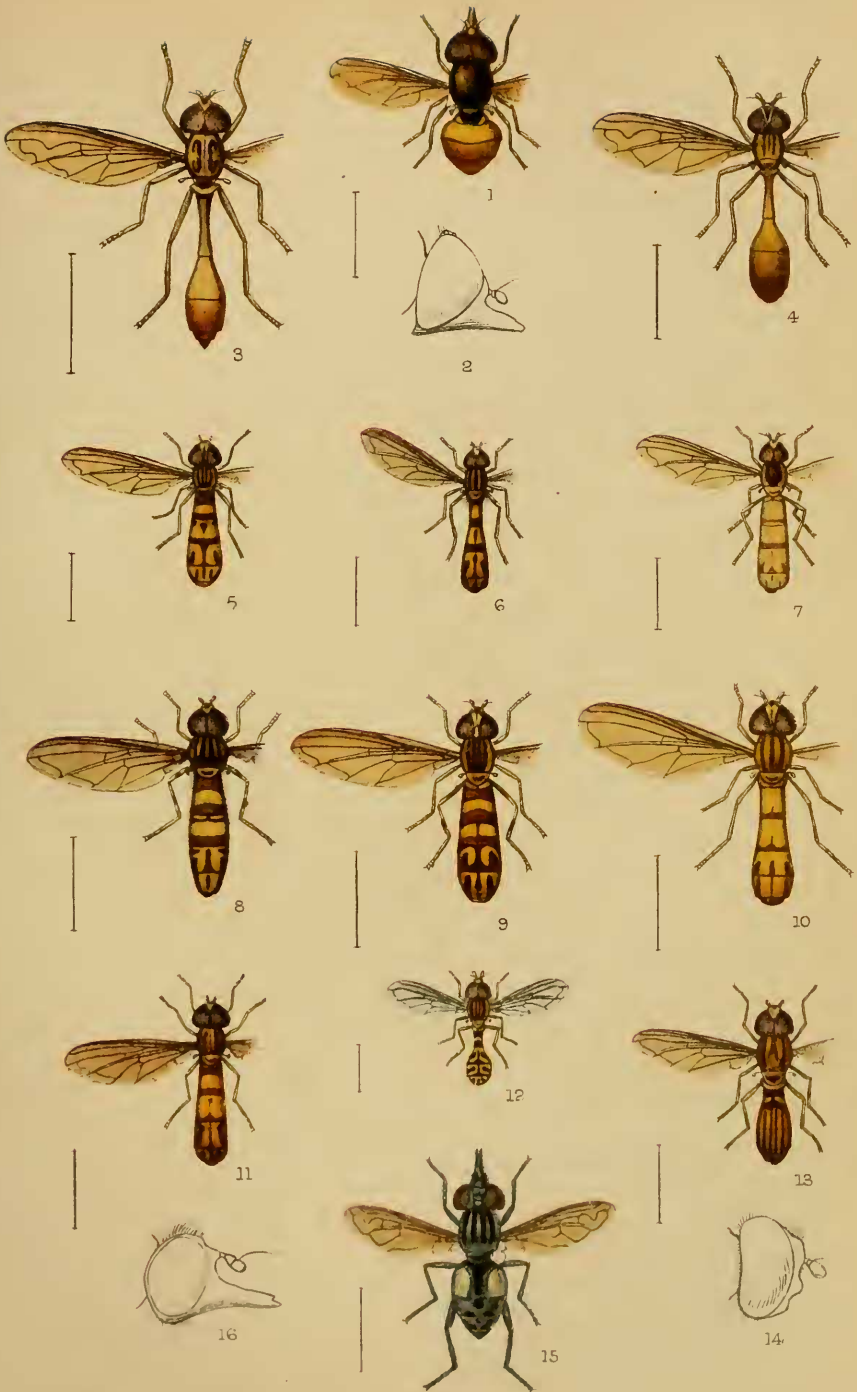
Oriental Region.

Baccha nubilipennis, p. 136 Ceylon.
 „ *triangulifera*, p. 138 „
 „ *pulchrifrons*, p. 139 „
 „ *fallax*, p. 142 „
 „ *amphithoe*, p. 142, Wlk. (re-described) ... Mullmein, Sarawak, Ceylon.

Australian Region.

Baccha bicolor, p. 137 Mysol.
 „ *refulgens*, p. 138 Bouru.
 „ *sulica*, p. 144 Sula Is.





Neotropical Region.

<i>Ocyptamus iris</i> , p. 133	Jamaica.
<i>Baccha sagittifera</i> , p. 144.....	"
" <i>signifera</i> , p. 145	Brazil.
" <i>levissima</i> , p. 146	"
" <i>incompta</i> , p. 147	"
" <i>pumila</i> , p. 148	"
" <i>silacea</i> , p. 149	"
" <i>cultrata</i> , p. 151.....	"
" <i>flavens</i> , p. 153	"
" <i>gilva</i> , p. 154.....	"
" <i>crocata</i> , p. 155	"
" <i>crocea</i> , p. 157	"
" <i>fervida</i> , p. 158	"
<i>Salpingogaster virgata</i> , p. 159.....	"
" <i>minor</i> , p. 161.....	"

BACCHINI, Williston.

Synopsis N. Amer. Syrphidæ, Bull. 31, U.S. Nat. Mus. p. xv.

OCYPTAMUS, Macq.

OCYPTAMUS IRIS, sp. n. (Plate IV. fig. 1, ♀.)

♀. Length $7\frac{1}{2}$ mm.

Face and cheeks pale yellow; face with a sharply defined metallic bronze median stripe, reaching to the oral margin; vertex bluish purple, front metallic greenish black, pollinose on the sides and in the middle; pile black. Antenniferous projection yellow in front, below. *Antennæ* orange-yellow, brown above; third joint oval. *Thorax* dull purplish black on the dorsum, steely blue on the sides and pleuræ; *scutellum* metallic, bluish in front, bronze-green behind. *Abdomen* metallic iridescent, with dull velvety black markings; first segment magenta, brilliant steel-blue on the sides; second segment magenta in front, merging into purplish golden behind, with a reniform velvety black transverse patch in the middle, not reaching to the sides; lateral margin of the segment blue; third segment a mixture of magenta and bronze, with a quadrate velvety spot on each side in the middle; fourth segment somewhat darker, golden bronze in front, greenish in the middle, magenta on the posterior angles, with a quadrate velvety spot on each side in the middle, more widely separated one from the other than the previous pair; fifth segment prune-purple, bluish on the anterior angles: the sides of the abdomen are fringed with short pale hairs, the posterior angles of the fifth segment with black hairs, which project backwards. *Legs* yellow; posterior tibiæ brownish on the inner side; the last four joints of the tarsi brownish. *Wings* hyaline, with a conspicuous brown blotch at the tip, above the third vein; subcostal cell pale yellowish brown; third longitudinal vein straight: *alulae* rudimentary.

Cinchona, Jamaica; June: one specimen, collected and presented by W. Fawcett, Esq.

This species is allied to *Ocyptamus* (*Baccha*) *ceruleus*, Will.

(Biol. Centr.-Amer., Diptera, iii. 38), from Mexico, and *Ocyptamus* (*Pipiza*) *costalis*, Walker (Linn. Trans. xvii. 342, 31) from S. America; it is, however, distinguished from both by its yellow face and legs, and by the colour of its abdomen, as also by its abdomen not being clothed with white, short, curved hairs, by the wings being without a brown fore-border, by the third longitudinal vein being straight, and by its smaller size.

Pipiza costalis, Walker, Linn. Trans. xvii. 342, from S. America, is an *Ocyptamus*, allied to *O. cæruleus* (*Baccha cærulea*), Will., Biol. Centr.-Amer., Diptera, vol. iii. p. 38.

Pipiza pica, Wlk., Tr. Ent. Soc. n. ser. iv. 156, from the Valley of the Amazon, = *Ocyptamus* (*Syrphus*) *trigonus*, Wied.

Pipiza dolosa, Wlk., loc. cit., from the Valley of the Amazon, = *Ocyptamus dimidiatus*, F. (♂).

Pipiza divisa, Wlk., loc. cit., from Vera Cruz, = *Ocyptamus dimidiatus*, F. (♀).

Syrphus stolo, Wlk., Dipt. Saunders. 241, from Brazil, is an *Ocyptamus*. The type is headless. The wings are apparently precisely similar to those of the ♂ of *O. dimidiatus*, F.; but the specimen is distinguished from this species by the yellowish markings on the sides of the abdominal segments, as well as by the yellower colour of the first two pairs of legs.

Syrphus antiphates, Wlk., List Dipt. iii. 589, is an *Ocyptamus*.

Syrphus peas, Wlk., loc. cit. 590, from — ? = *Ocyptamus fuscipennis*, Say.—The head of Walker's type, as described by him, has been stuck on, and does not belong to it.

Syrphus amissas, Wlk., List Dipt. iii. 589, from Georgia, = *Ocyptamus fuscipennis*, Say. *Syrphus radaca*, Wlk., List Dipt. iii. 590, from Florida, = *Ocyptamus fuscipennis*, Say, var. *fuscipennis*, Macq. Walker's description is drawn from two ♀ specimens, and not from a ♂, as stated by him.

The synonymy of the two last-mentioned species has already been recognized by Williston, Synopsis, &c., p. 119.

Syrphus iridipennis, Wlk. Linn. Trans. xvii. 345, from S. America, is an *Ocyptamus*, closely allied to *Ocyptamus funebris*, Macq. It may, indeed, be only a variety of the latter species, though the semi-hyaline space beneath the apex of the wing in the latter is much more indistinct in Walker's species, in which, again, there is a semi-hyaline streak in the middle of the submarginal, first posterior, and discal cells. The wings of Walker's type are, moreover, slightly narrower than those of specimens of *O. funebris*, Macq., in the collection.

Syrphus tarsalis, Wlk., Linn. Trans. xvii. 345, from S. America, is an *Ocyptamus*. There is a narrow pale yellow stripe on each side of the third abdominal segment, starting from the anterior angle and extending a little more than half the length of the segment, and a mark of the same colour shaped like an isosceles triangle on each side of the fourth segment, extending from the anterior angle not quite to the middle of the segment. The

apical fourth of the first joint of the posterior tarsi is yellowish white like the remaining joints of this pair of tarsi.

BACCHA, F.

The genus *Baccha* seems to me at present to include at least three distinct groups of species. Of Group I. the European *B. elongata*, F., may be taken as a type; the members of this group, which are found in both the Old and New Worlds, are species with pedunculate abdomens, more or less dark in colour, usually varied with yellow markings, and hyaline or infuscated wings: the alulae may or may not be rudimentary.

Group II. is composed exclusively of Neotropical forms, in which the abdomen is of a more or less ferruginous or ochraceous colour, marked with a series of continuous longitudinal stripes of a lighter tint, spatulate posteriorly and more or less contracted at the base; the dorsum of the thorax is usually covered with ochraceous pollen, and marked with stripes; the front bears a pronounced antenniferous projection, marked with a round black dot; the wings generally have an ochraceous infuscation, and the alulae are of the full size: of this group *B. livida*, Schin., may be taken as typical; *B. conjuncta*, Wied., is an aberrant form.

Group III. at present also consists entirely of Neotropical species, the characteristics of which are a broad, flat abdomen, which is not contracted basally, but expands regularly to the end of the fourth segment, and is of a more or less ferruginous or yellowish colour, which is divided up by brown bands, &c., into broad and generally notched markings; infuscated wings, with the third longitudinal vein straight, or somewhat concave posteriorly, and rudimentary alulae; there is also a small antenniferous process, marked with a round black dot: the shape and colour of the abdomen are thus the most striking features of this group, of which the species described below as *Baccha crocata* may be taken as a type. The only previously described species which I can assign to this group is *B. luctuosa*, Bigot (Ann. Soc. Ent. Fr. 1883, p. 334), from Mexico.

Of the species here described, all those from the Oriental and Australian Regions, as well as *B. signifera*, *levissima*, *incompta*, and *pumila*, from Brazil, and *B. sagittifera*, from Jamaica, belong to Group I. *B. amphithoe*, Wlk., from the Oriental Region, and *B. bigoti* (nom. nov.), from Brazil, also belong here.

Of Group II. the only species here described is *B. silacea*, from Brazil. Specimens of several other species, which are doubtless new and certainly belong to this group, are in the Collection, but are not in a sufficiently good condition to describe.

To Group III. belong *B. cultrata*, *flavens*, *gilva*, *crocata*, and *crocea*. *B. fervida* also belongs here, but has full-sized alulae.

I think there is no doubt that the genus *Baccha* as it now exists ought to be split up; and, while I do not venture to undertake the task myself at present, I have endeavoured to indicate a way in which perhaps it might be done. It seems inconsistent to place

species like *B. rubricosa*, Wied., and *B. conjuncta*, Wied., in the same genus as *B. elongata*, Fab., when, for instance, what Fallén called *Scæva hyalinata* is distinguished generically from *Syrphus ribesii*, Linn., or when *Ocyptamus*, Macq., is allowed to retain its independence.

Group I.

BACCHA NUBILIPENNIS, n. sp. (Plate IV. figs 7, 9, ♂ ♀, and Plate V. fig. 14, head of ♂.)

♂ ♀. Length : ♂ $12\frac{1}{2}$ to $14\frac{1}{2}$ mm., ♀ $12\frac{2}{3}$ to $13\frac{2}{3}$ mm.

Face and cheeks yellow, with yellow pollen and pale yellow pile. Cheeks in ♂ sometimes narrowly blackish immediately below the eyes. A prominent, rounded, and sharply-defined facial tubercle, commencing halfway down the face; sometimes an indistinct brown stripe between it and the antennæ. *Antenna* orange; third joint large, ovate, larger in the ♀ than in the ♂. A very pronounced antenniferous process, shining black above, and orange-yellow immediately above the base of the antennæ; the orange-yellow area is larger in the ♀; the projection is truncate and flattened in front, and pilose on the sides only. *Front* in ♂ greenish black, with yellow pollen, and vertical triangle black; in ♀ shining black, with a narrow triangular area on each side in front yellow pollinose. *Pile* on front blackish in ♂, yellowish in ♀, shorter in the latter than in the former. *Occiput* with a fringe of pale yellow hairs. *Thorax* shining black; the collar of hair in front pale yellow; elsewhere nearly bare. *Humeri* and postalar callosities brownish; *pleuræ* with a broad vertical stripe of golden pollen in front of the suture; the stripe has a reddish ground; *pleuræ* behind the wings silvery pollinose. *Scutellum* polished dark brown on the disc, more or less yellowish, semi-translucent, behind. General colour of the *abdomen* metallic black (brownier in ♀), sometimes with a distinct bluish sheen; the abdomen is broadest in the fourth segment. The first segment has outstanding pale yellow hairs on each side; elsewhere the abdomen is clothed with very short appressed black pile. First segment black, brownier and with an edging of yellow in the ♀; second segment with a yellow basal band, notched in the median line behind, and with an interrupted brownish-yellow band near the tip, the latter often scarcely visible in the ♂; *third segment with a conspicuous transverse yellow band*, occupying about the middle third of the segment, but slightly nearer the base; the remaining segments wholly metallic black; male genitalia small and concealed. *Legs* orange-yellow; posterior femora slightly darker, dark brown above and below on the distal half, but orange at the tips; posterior tibiæ reddish on basal third, then dark brown; posterior tarsi dark brown on basal two-thirds of first joint, then whitish yellow. *Wings* infuscated, dark brown in the middle, and usually darker in the ♂ than in the ♀; in the ♀ the wings show a faint secondary infuscation at the tips, above the third vein; an area at the base on the

inner side nearly hyaline ; third vein gently curved above the base of the first posterior cell ; in the ♂ the wings are narrower and less rounded at the tips, while the terminal section of the fourth posterior vein, closing the first posterior cell, is less sinuate and more oblique than in the ♀ : *alulae* long, narrow, posterior margin straight.

Ceylon (*Lieut.-Colonel Verbury*). The typical specimens are from Kandy (*circa* 1800 ft.), the ♂ collected June 28, 1892, the ♀ May 25, 1892. Common in the Central Province ; one specimen from Baddegama, in the neighbourhood of Galle.

This species is distinguished from any other known to me from the Oriental Region, by the marking of the abdomen, and the sharply-defined facial and antenniferous tubercles when viewed in profile.

BACCHA BICOLOR, sp. n. (Plate IV. fig. 6, ♂.)

♂. Length 13 mm.

Face and *cheeks* pale yellow, clothed with yellow pollen ; a small, round, bare, sharply-defined tubercle slightly below the middle of the face. *Antennae* yellow. Front brownish, yellowish pollinose on the sides, clothed with pale yellow pile. Vertical triangle black. *Thorax* dull brown, faintly pollinose on the dorsum ; shoulders and pleuræ in front pale yellow ; a conspicuous vertical stripe on the pleuræ below the transverse suture yellowish white, pollinose ; a similar, but somewhat duller, spot behind and below the base of the wings. *Scutellum* reddish brown. *Abdomen* : first segment yellow, blackish on the sides ; second segment yellow, brownish in the middle, and brown on the distal fifth ; third segment yellow for rather more than half its length, then metallic brownish black, with a somewhat V-shaped transverse brown mark on the yellow portion near the base of the segment, the apex of the V being directed forwards and the arms widely divergent ; the remainder of the abdomen metallic prune-purple ; external genitalia yellow, not projecting beyond the fifth segment. The abdomen is spatulate from the commencement of the third segment, and on the dark portion is clothed with sparse and very short appressed black pile ; elsewhere the body of this species is practically bare. The *first two pairs of legs* yellow ; the posterior legs, except rather more than the basal half of the femora, which is yellow, pale brown ; on the posterior femora a narrow band at the commencement of the dark portion is darker brown than the remainder, and the posterior tibiae have the tips and an ill-defined band in the middle yellowish. *Wings* brown, paler at the tips, and with a small area at the base on the inner side nearly hyaline ; the wings are rounded at the tip and show no angle at the junction of the costal vein with the hind margin ; the second longitudinal vein bends downwards before joining the costa, so that the end of the marginal cell is blunt, while the third longitudinal vein bends slightly upwards at its termination, and the terminal portion of the fourth longitudinal vein is very oblique,

so that the outer extremity of the first posterior cell is wide : *alulae* rudimentary.

Mysol Is., Malay Archipelago (*Wallace*): one specimen.

The type of this species was described by Walker (*Journ. Linn. Soc.* vii. p. 212) as being possibly the male of his species *Baccha purpuricola*, the type of which is a female. The yellow face and variegated abdomen of the present species, however, render its identity with *B. purpuricola* absolutely impossible. This species is clearly allied to *Baccha moluccana*, *Doleschall* (*Natuurk. Tijdschr.* Ned. Ind. xiv. p. 412, tab. iii. fig. 2), from Amboina, the abdomen of which, as figured by *Doleschall*, is strikingly similar to that of the present species; the face of *Doleschall*'s species is, however, black in the middle and yellow on the sides, and he expressly states that the scutellum is black.

BACCHA REFULGENS, sp. n. (Plate IV. fig. 4, ♀.)

♀. Length 13 mm.

Front, face, and cheeks metallic dark purple, thinly clothed with pale pile; facial tubercle not sharply defined. *Antennae* orange-yellow; third joint oval. *Thorax* and *scutellum* metallic purplish violet, nearly bare; postalar callosities brownish. The *abdomen* spatulate from the commencement of the third segment, thinly clothed with short blackish pile; the first two segments metallic blackish, the remainder brilliant metallic pansy-purple. *Legs* yellow; posterior femora with a faint indication of a narrow brownish ring beyond the middle; distal third of posterior tibiae and posterior tarsi brown. *Wings* hyaline, with the costal border to the tip of the third vein (including the costal, subcostal, and marginal cells) and a central area, which includes the basal cells, rather less than the basal half of the submarginal cell, rather less than the basal third of the first posterior cell and the basal two-thirds of the discal cell, and faintly extends to the posterior margin at the tip of the anal cell, brown: *alulae* of full size.

Bouru Is., Malay Archipelago (*Wallace*): one specimen.

This species is allied to *Baccha purpuricola*, Walker (*Journ. Linn. Soc.* iii. [iv.] p. 129), from Key Is., but is distinguished at once by the colour of its thorax.

BACCHA TRIANGULIFERA, sp. n. (Plate IV. fig. 5, ♂.)

♂ ♀. Length 13 mm. (♀ 12½ mm.).

Front, face, and cheeks yellow, with short pale yellow pile; a narrow dark brown median stripe extending a little more than halfway down the face from the antennae. Vertical triangle in ♂ shining black, very long and narrow, extending more than one-third of the distance between the occiput and antennae. *Front* of ♀ with a brownish triangular spot immediately above the antennae; very narrow above, metallic black, with parallel sides for one half its length from the occiput. *Occiput* dull black, pollinose, with a fringe of glistening whitish hairs. *Antennae* orange, third joint

bluntly oval; arista brown, except the base. *Thorax* metallic black, finely punctate, with very short, silky, yellowish pile; humeri, a stripe from them to the suture, a vertical stripe on the pleuræ in front of the suture, a large rounded spot below this stripe, an oblique elongated spot behind the base of the wings, and the anterior margin of the scutellum pale yellow. *Scutellum*, except anterior margin, blackish brown, punctate. *Abdomen* cylindrical and very narrow from posterior half of first segment to middle of third, expanding and spatulate from thence to the tip; general colour reddish brown, clothed with short, appressed, blackish pile; second segment with fine, whitish, erect pile on the sides; a very conspicuous translucent yellow spot, occupying distal third (rather more in ♀) of the third segment, and shaped like an equilateral triangle; first segment yellow, brown at the tip; second segment reddish brown, darker at the tip, before which is a narrow indistinct lighter band; base of third segment yellowish, posterior margin brown; fourth segment polished dark brown, steely on posterior margin in ♂; fifth segment polished dark brown, with a steely sheen; external genitals reddish in both sexes, rather prominent in ♂. *Legs* luteous, coxæ blackish brown; posterior femora reddish brown, yellowish at the base; posterior tibiæ pale yellow on basal third, then dark brown; first joint of posterior tarsi dark brown, except at the tip; this and the remaining joints dull yellow. *Wings* hyaline, with a brownish tinge along the posterior margin; subcostal cell dark brown, and a brownish patch at the distal extremity of the marginal and submarginal cells, terminating sharply at the third vein; the latter straight; veins dark brown: *alulae* almost absent.

In the shape of the profile of the face and in the venation of the wing, this species resembles *B. pedicellata*, Dol. (according to Doleschall's figure), from Java; but the sharply-defined yellow triangle on the third abdominal segment distinguishes the species from any other known to me.

Huldamulla, Ceylon; circa 4000 ft. (*Lieut.-Colonel Yerbury*). A pair taken in copulâ, June 10, 1892.

BACCHA PULCHRIFRONS, sp. n. (Plate IV. figs. 10, 10^a, 11, ♂ ♀.)

♂ ♀. Length: ♂ 10 to 11½ mm., ♀ 9¾ to 10¾ mm.

In ♂, *front*, upper part of the face immediately below the antennæ, and a broad facial stripe reaching to the oral margin steely. In ♀, *front*, including whole circumference of antenniferous projection and a facial stripe, narrower than in the ♂, but reaching to the oral margin, metallic black, sometimes steely; sides of face yellowish pollinose; cheeks orange-yellow, with a blackish-brown spot in front, more or less distinctly connected with the facial stripe, sometimes indistinct in the ♀. *Front* (including vertical triangle in the ♂) and *face* clothed with pale yellow pile. Frontal triangle in ♂ dusted with yellowish pollen above; front in ♀, a little below the middle, with a triangular patch of pale yellow pollen on each side, the apices of the triangles meeting or narrowly

separated in the median line. A distinct facial tubercle and antenniferous process, the latter somewhat more pronounced in the ♀ than in the ♂. *A lunate spot on each side of the antenniferous process metallic violet.* Antennæ orange-yellow; third joint oval; arista brown, yellow at the base. Occiput black, whitish pollinose, with a fringe of pale hairs. *Thorax and scutellum:* in ♂ metallic bronze-black, clothed with golden pile; in ♀ metallic blue-black, clothed with shorter whitish-yellow pile; in the ♂ a sometimes obscure yellowish vertical stripe on the pleuræ beneath the suture; in the ♀, humeri and a similar vertical stripe on the pleuræ light yellow, the stripe with whitish pile. General colour of the *abdomen* bronze-black, with yellow markings; clothed with erect and rather long yellowish pile on the sides of the first three segments, and elsewhere with appressed pile, black on the black and whitish on the yellow portions: the sides of the third and fourth segments in the ♂ are so curled round ventrally as to make the abdomen at the tip appear not more than double the width of the second segment at the base; distal half of the abdomen of the ♀ spatulate; first segment reddish yellow, brown on the hind margin, sometimes wholly brown or bronze-black in the ♂; second segment bronze in the ♂, sometimes reddish on each side at the base, with a more or less distinct reddish-yellow transverse band on the second sixth from the hind margin; in some specimens the second segment is wholly bronze-black in the ♂, except the posterior fifth, which is dull black; second segment in the ♀ metallic black, with a reddish-yellow band on the second fifth from the hind margin, and sometimes reddish yellow at the base; third segment in the ♂ bronze on the basal and dull black on the apical third, with a quadrate yellow spot on each side in the middle; third segment in the ♀ metallic black, with a yellow, somewhat triangular spot on each side in the middle, the apices directed outwards, and the bases inclined one towards another and sometimes narrowly meeting in the middle line in front; the posterior side of each triangle concave; fourth segment in the ♂ bronze-black, with a quadrate yellow spot on each side at the base, occasionally somewhat obscure, but when distinct deeply emarginate posteriorly, so that each spot shows a sharp angle projecting backwards on each side of the median line; fourth segment in the ♀ metallic black, with a yellow longitudinal stripe on each side of the median line, starting from the base and running the whole length of the segment, and a broader yellow elongated spot starting from the base of the yellow stripe on each side and running obliquely outwards, so as almost to cut off a basal angle; in some specimens the yellow longitudinal stripes become obsolete before reaching the hind margin of the segment, and in others apparently do not run more than halfway; fifth segment in the ♂ wholly metallic black; genitalia small, metallic black; fifth segment in the ♀ metallic black, with a somewhat confused repetition in miniature of the yellow markings on the fourth segment. *Legs* yellow; coxæ blackish brown, and a band on the outer half of the posterior

femora, not reaching to the tips, and the distal third of the posterior tibiae brown; there is sometimes an indication of an incomplete brownish ring round the middle of the posterior tibiae. *Wings* in the ♂ sharper at the tip, and with the terminal portion of the fourth longitudinal vein, closing first posterior cell, more oblique than in the ♀; suffused with brown, usually lighter at the base on the inner side, darker in the costal and subcostal cells and in the middle, and with the stigma and an elongated and not sharply-defined spot at the tip, above the third vein, dark brown; wings in the ♀ hyaline, the subcostal cell brown, and the stigma and an elongated spot at the tip above the third vein, as in the ♂, dark brown; third longitudinal vein gently curved: *alulae* of full size.

Ceylon (*Lieut.-Colonel Yerbury*): twelve specimens. The types are from the Hot Wells at Trincomali, the ♂ collected on Nov. 2, 1890, and the ♀ on March 13, 1892; very common on the Trincomali side. Other specimens from Kandy (whence also the Museum collection contains two collected by Mr. E. E. Green), Heneratagoda, and Bentota. Apparently the commonest species of *Baccha* in Ceylon.

This species is very closely allied to *Baccha apicalis*, Lw. (Wien. ent. Monatschr. Bd. 2, p. 106), from Japan, and may, indeed, be identical with it. Since, however, Loew describes a ♀ only, of which the head was destroyed, and considering the great difference in the locality of the specimens, it is impossible to be certain of the identity without comparing Loew's type, and I have therefore ventured to consider the present specimens as distinct. In the markings of the third and fourth segments of the abdomen, *B. pulchrifrons* resembles *B. dispar*, Walker (Journ. Linn. Soc. iii. [iv.] p. 121), from Macassar, Celebes. The latter species, however, is at once distinguished by its much greater size and by the brown band across the centre of the wing.

Besides the specimens mentioned above, Colonel Yerbury obtained two others, which he bred from an Aphis-infested leaf of the "Cambuk" tree, found at Nilavelli on Nov. 16, 1890. The flies, which are ♂ and ♀, emerged on Nov. 29 and 30, 1890. The specimens are somewhat smaller than the majority of those of *B. pulchrifrons* (the ♀ measures $9\frac{3}{4}$ mm. in length; the head of the ♂ is unfortunately missing), but resemble them in their general habitus, with the following differences:—the thorax of the ♂ is more greenish black and less bronze; the yellow markings of the abdomen in both sexes are much more distinct, sharper, and more opaque-looking; those on the third and fourth segments of the abdomen of the ♂ are larger than in *B. pulchrifrons*, and the inner longitudinal stripes on the fourth segment in the ♀ are broader, and expanded on the hind margin of the segment; the *wings*, with the exception of the subcostal cell, which is brown, are *hyaline in both sexes*, with a very faint infuscation at the tip above the third vein; there is an indication of the metallic violet spot on each side of the base of the antenniferous process in the ♀. As these specimens are not in a good state of preservation, it is impossible

to decide whether they really belong to a new species; I therefore regard them provisionally as a variety of *B. pulchrifrons*.

BACCHA FALLAX, sp. n. (Plate IV. fig. 12, ♂.)

♂. Length 11 mm.; wing, length $8\frac{3}{4}$ mm., width across the centre $2\frac{3}{4}$ mm. Very closely resembling *B. pulchrifrons*; differing as follows:—*front*, and broad median *facial stripe* reaching to the oral margin, metallic black, not steely; sides of the *face*, including upper portion, and *cheeks* deep yellow; antenniferous process considerably smaller, when viewed from above, and no trace of metallic violet spot on the side; *thorax* and *scutellum* more bronzed; *pleural stripe* orange, much more conspicuous, and rising higher on the sides of the dorsum; first segment of the *abdomen* pure yellow; second segment considerably narrower, longer, and wholly bronze-black, except the basal angles, which are yellow; the yellow markings on the third and fourth segments entirely resembling those on the corresponding segments in the ♀ of *B. pulchrifrons*, and not as in the ♂ of that species; wings longer and narrower; except at the base, uniformly suffused with brown, not darker in the middle; apical spot above the third vein reduced to a mere line, so as to appear as a simple continuation of the stigma: *alulae* long and rather narrow, with a straight posterior edge.

Ceylon (*Lieut.-Colonel Yerbury*): two specimens, both males. The type was collected at Haycock Hill, near Galle, April 27, 1892; the second individual at Kandy, May 30, 1892.

Owing to the deceptive similarity between the markings on the abdomen of this species and those on the abdomen of *B. pulchrifrons* ♀, these specimens would certainly be regarded as males of the latter if regard were not paid to the differences enumerated above.

BACCHA AMPHITHOE, Walker, List. Dipt. iii. 549. (Plate IV. fig. 2, ♀.)

Walker's type is from the "East Indies," *i. e.* Mulmein, according to the Museum register, coll. Archdeacon Clerk. The Museum collection also contains another specimen from Sarawak, collected by Wallace (Walker, Journ. Linn. Soc. i. 125). Walker's type, however, is a mere fragment, the sex of which it is impossible to determine, and was minus its head when Walker described it. I therefore avail myself of the opportunity presented by the acquisition of three specimens from Ceylon, contained in a collection of Diptera recently brought home by Lieut.-Colonel Yerbury, to re-describe this species. The specimens from which this re-description is drawn will be marked and placed in the Museum collection.

♂ ♀. Length: ♂ 10 mm., ♀ 10 to 11 mm. *Face* and *cheeks* yellow. A sharply-defined black median stripe on the face, from antennæ to mouth, becoming somewhat indistinct before reaching the mouth in the ♀; sometimes with a metallic bluish sheen. A low facial tubercle. Front metallic black in both sexes, and yellow

on each side below; yellowish pollinose above in ♂, and with a triangular patch of yellow pollen on each side in the middle in the ♀, scarcely separated by an indistinct black median line. *Antennæ* orange-yellow; third joint oval. Front and face in both sexes clothed with very short pale yellow pile. Occiput yellowish pollinose, with a fringe of silvery yellow hair. *Thorax* metallic black, clothed on dorsum with very short appressed golden pile. *Humeri*, an elongated spot from thence to the suture, a vertical stripe and rounded spot below the sutural end of this, and two oblique elongated spots below the base of the wing, and separated by a fine line, yellow. Post-alar callosities reddish brown, sometimes darker. *Scutellum* wholly yellow, but sometimes semi-transparent behind, or more or less distinctly brownish on the disc. *Abdomen* cylindrical at the base, expanding rapidly and spatulate (especially in the ♀) from the base of the third segment: general colour reddish yellow, polished, with very short pile; *third and fourth segments with conspicuous black hind margins*; first segment reddish yellow, with erect pale yellow pile on each side; second segment cylindrical, reddish brown, darker at the distal end, with a yellowish band occupying the second fifth of its length from the hind margin; third segment yellowish at the immediate base, with a reddish-brown triangular patch on each side (especially distinct in the ♀) narrowly reaching the hind margin, then yellow, except the hind margin, which has a sharply defined black band; the yellow area of the segment is consequently triangular, with its apex directed forwards; fourth segment yellow, the basal angles, sides, and a large somewhat triangular area on the hind margin with its apex directed forwards, black (the sides of this and the previous segment in the ♂ are usually curled round ventrally, and to be seen must be looked at from beneath); fifth segment yellow, with a blackish median basal spot, indistinct in the ♂: ♂ genitalia reddish yellow, projecting. *Legs* yellow; coxæ blackish at the base; an ill-defined band on the distal half of the posterior femora, not reaching to the tip; distal half of the posterior tibiæ, and base of first joint of the posterior tarsi, brown. *Wings* suffused with brownish; costal border to the termination of the third vein brown, darkest in the outer portion of the subcostal cell and at the tip: *alule* of about half the normal size.

Ceylon, neighbourhood of Trincomali (*Lieut.-Colonel Yerbury*); Mulmein (type); Sarawak (*Wallace*). Colonel Yerbury obtained five specimens, three of which he has presented to the Museum. He states that the species is rare. The ♂ which I have described was taken at Kanthalai, March 8, 1892; the ♀ at Kottawa, April 24, 1892: the third specimen presented is a ♂, also from Kanthalai, Jan. 31, 1891; the other two individuals obtained are a ♂ and ♀, the former from Bentota, June 6, 1890, and the latter from Huldamulla, June 10, 1892.

Baccha gratiosa, Big., from Sarawak, and *B. vespaformis*, Dol. (*Natuurk. Tijdschr. Ned. Ind.* xiv. p. 411, pl. iii. fig. 1), from Amboina, are allied to this species. The latter resembles it very

closely, and may be identical, but Doleschall does not mention the black stripe on the face, while he states that the abdomen of his species has *three* transverse black bands.

BACCHA SULICA, sp. n. (Plate IV. fig. 3, ♀.)

♀. Length 9 mm.

Face and *cheeks* pale yellow pollinose, with a small but sharply-defined facial tubercle. Front metallic blue, with a pollinose stripe on each side on the lower two-thirds. *Antennæ* yellow; first two joints very small, third joint ovate, large. *Thorax* dark brown on the disc and below the base of the wings; pale yellow on the sides in front, and with a pale yellow pollinose vertical stripe on the plenæ below the suture, and a similar spot behind the base of the wings. *Scutellum* yellow. *Abdomen* spatulate, but not excessively attenuate at the base: first segment yellow; second segment yellow, brown on the distal fifth and indistinctly brownish in the middle; third segment yellow for rather more than half its length, then metallic purplish dark brown, a transverse brown band on the yellow portion; the remainder of the abdomen metallic purplish dark brown. With the exception of a few outstanding pale yellow hairs on each side of the first abdominal segment, the body of this species is nearly bare. *Legs* pale yellow, the posterior tibiæ and tarsi brownish, and a narrow brown band on the distal half of the posterior femora, not reaching to the tips. *Wings* with a brownish tinge; the subcostal cell, from the junction of the auxiliary vein with the costa, pale brown: the wings are blunt at the tips: *alulae* rudimentary.

Sula Is., Malay Archipelago (*Wallace*): one specimen; a second specimen is from Mysol (*Wallace*).

In the markings of the abdomen this species somewhat resembles *Baccha moluccana*, Doleschall (*Natuurk. Tijdschr. Ned. Ind.* xiv. p. 412, pl. iii. fig. 2), from Amboina, which, however, is at once distinguished by its black scutellum, as well as by its greater size.

I found the type of this species labelled "*sulica*" in Walker's handwriting, but I cannot discover that it has ever been described.

BACCHA SAGITTIFERA, sp. n. (Plate IV. fig. 14, ♀.)

♀. Length $8\frac{1}{2}$ mm.

Purplish black, nearly bare, pleuræ and abdominal markings yellow; those on the fourth abdominal segment sagittate. Abdomen spatulate posteriorly, cylindrical, but stout, to end of third segment. Wings suffused with brown at the tips; alulae apparently wanting.

Face and *cheeks* pale opalescent yellow; oral margin brighter yellow; a well-marked facial tubercle, below which the face recedes. Front yellow, with a black median stripe extending from the vertex to the base of the low antenniferous projection; the latter brassy, with a shining black dot in the median line immediately above the antennæ; antennæ orange, very small, short, third joint oval, darker above. Post-alar callosities pale yellow, pleuræ brassy

yellow, pectus and metanotum metallic black. *Scutellum* brownish yellow. *Abdomen*: the anterior margin and sides of the first segment pale yellow; on the second segment a narrow transverse band, slightly notched in the median line behind and situated just beyond the middle of the segment; third segment with a crescentic band in the middle, narrowly interrupted in the median line, concave posteriorly, and nearly three times as broad as the band on the second segment; the sagittate markings are situated on the anterior half of the fourth segment, and directed anteriorly, they are narrowly separated in the median line and are truncated in front by the hind margin of the preceding segment; on the fifth segment the yellow markings consist of deeply notched bases of arrow-heads, situated one on each side of the anterior half of the segment, the whole of the remainder of the arrow-heads being, as it were, hidden beneath the fourth segment; the inner angles of the bases of the arrow-heads are longer than the outer, and the notches are very much larger than in the case of the arrow-heads on the previous segment; sixth segment wholly purplish black: the markings on the fourth and fifth segments are of a deeper yellow than the others. *Legs* yellow; the posterior femora and tibiae each with two brown bands, the band near the base of the femur being more diffuse and less distinct than the others; similar bands are faintly indicated on the middle legs. *Wings* with a brownish tinge, which becomes concentrated at the tips; distal half of subcostal cell brown; third longitudinal vein straight; distal portion of fourth vein, closing first posterior cell, short, upright.

Cinchona, Jamaica; June (*W. Fawcett, Esq.*): one specimen.

This species of *Baccha* is distinguished from any other known to me, by the shape of the conspicuous yellow markings of the abdomen.

BACCHA SIGNIFERA, sp. n. (Plate IV. fig. 8, ♂.)

♂. Length $11\frac{1}{2}$ mm.

Face and *cheeks* metallic blue-black, with black pile; face narrowly shimmering white on the sides above; facial tubercle sharply defined, conical; *front* (including the large antenniferous projection) metallic black, with a dull black quadrate median area behind. The first two joints of the *antennae* black; the third brown; the arista brown. *Thorax* dull velvety black on the dorsum, with three stripes on each side of the median line metallic black; the innermost stripe on each side is very narrow and tapering, and does not reach much more than half-way; the intermediate stripe is broader, and also tapers, but fuses posteriorly with the lateral stripe, which is very broad indeed, and extends to the scutellum; the two outside stripes are divided by the transverse suture; the lateral stripe includes the post-alar callosity; *pleurae* metallic bronze-black. *Scutellum* metallic black; thorax and scutellum clothed with short black pile. *Abdomen* dull velvety black, with yellow dots and metallic bands;

first segment steely, with a tuft of black hairs projecting from the anterior angles, behind which is a tuft of yellow hairs: second segment steely on the anterior third above, on the sides for more than halfway, and on the hind margin, the remainder of the segment dull black, with a yellow dot on each side; third segment steely on the lateral margins, and with a narrow transverse steely band in front and behind, elsewhere dull black, with four oval yellow dots arranged in the form of a quadrilateral, the anterior pair twice as far apart as the posterior; fourth and fifth segments steely on the lateral and posterior margins, elsewhere dull black, and each with four oval yellow dots arranged as on the third segment; genitalia small, concealed: the abdomen is broadly spatulate, expanding from the base of the third segment to the posterior margin of the fourth, and contracting thence to the tip; the second segment is stout and cylindrical, with a fringe of hairs on each side, yellow in front and black behind; the remainder of the abdomen is sparsely clothed with short appressed black pile. *Legs* black, with short, close-fitting black pile: the tarsi flattened. *Wings* suffused with brown, with a darker area at the base, which is paler towards the posterior margin, and extends a little beyond the anterior cross-vein on the costal side: *alulae* well-developed.

Ega, Brazil (*Bates*): one specimen.

This species is allied to *Baccha adspersa*, Fab., but is at once distinguished by the infuscation of the entire wing. The terminal section of the fourth vein is also much more oblique in this species than in *B. adspersa*.

BACCHA LEVISSIMA, sp. n. (Plate IV. fig. 15, ♂.)

♂. Length $10\frac{1}{2}$ to $11\frac{1}{2}$ mm.; length of wing $6\frac{1}{2}$ to 7 mm.

Metallic bronze-black, with dead-black markings on the abdomen; the latter greatly attenuated; wings very short, infuscated; alulae rudimentary.

Face and cheeks metallic steely black, clothed (except on the tubercle) with cinereous pollen; facial tubercle prominent. *Front* with a pentagonal dead-black patch in the angle of the eyes, on each side of which, when viewed from behind, is a shimmering white dot; front elsewhere and antenniferous process metallic black, the latter with a flattened rugose area above. Vertical triangle black; the short pile on the front and vertical triangle black. *Antennae* small; the first two joints black, the third brown, oval; arista blackish brown. Occiput black, with silvery pollen, and fringed with short whitish hairs. *Thorax* rather dull, metallic bronze-black on the dorsum, shining metallic greenish black on the pleurae; a narrow dead-black median stripe on the anterior part of the dorsum, not extending beyond the region of the transverse suture: on either side of this stripe the dorsum in front is brownish pollinose, when viewed from behind or from the side. *Scutellum* metallic black; scutellum and dorsum finely punctate, almost bare. *Abdomen*: first segment metallic steely; second segment steely, with a broad dead-black transverse band,

concave posteriorly, on the hinder half of the segment, widely separated, however, from the posterior margin; in front of the black band is a small elongate and somewhat oblique yellow mark on each side, between which a narrow median dead-black stripe runs forwards from the cross-band, and bifurcates anteriorly; third segment similar to the second, except that the lateral yellow dots are more quadrate and less oblique, and that the median dead-black stripe does not bifurcate in front, but has a club-shaped head, which touches or is narrowly separated from the anterior margin of the segment; the fourth segment is shorter and broader than the third, but is similar to it, except that the yellow marks, which are duller and not so sharply defined, and sometimes indistinct, are considerably larger and elongated longitudinally; fifth segment wholly metallic black; genitalia metallic bluish black, small. The abdomen is sparsely clothed with very short black pile. *Legs*: anterior pair brown, darkest on the tarsi, which are flattened; the femora at the extreme base and at the tip, the tibiae at the base and at the extreme tip, yellow; the femora are also yellowish in the middle on the inside; second and third pairs of legs blackish brown, the tips of the femora, bases of the tibiae, and extreme tips of the middle tibiae, yellow: the middle femora have a fringe of dark hairs, the posterior coxae a fringe of pale yellow hairs beneath. *Wings* uniformly pale brown, except the subcostal cell, which is dark brown. Halteres orange.

Brazil, region of the Amazon (*Butes*): three males.

This species is allied to *Baccha brevipennis* and *B. rugosifrons* of Schiner (Reise 'Novara': Diptera, 341) and to *B. stenogaster*, Williston (Trans. Amer. Ent. Soc. xv. 266); it is, however, distinguished at once from the two first mentioned by the yellow spots on the abdomen and by the infuscated wings, as well as by its dark legs in the case of *rugosifrons*, and from *stenogaster* by its infuscated wings and dark legs.

BACCHA BIGOTI, nom. nov.

Syn. *Baccha apicalis*, Bigot (nec Loew). Bigot's species was described from Brazil (Ann. Soc. Ent. Fr. 6 sér., t. iii. p. 334, 1883); Loew's from Japan (Wien. ent. Monatschr. Bd. 2, p. 106, 1858).

The *alulae* are about half the normal size, with a straight posterior edge.

BACCHA INCOMPTA, sp. n. (Plate IV. fig. 13, ♂.)

♂. Length 10 mm.

Metallic dark brown, nearly bare: wings hyaline, the costal and subcostal cells, a somewhat zigzag mark from the first to the fifth longitudinal veins, crossing the origin of the third vein and involving the cross-veins at the tip of the posterior basal cell, and a blotch at the tip of the submarginal cell, slightly overflowing into the marginal, brown; alulae of the full size.

Face and cheeks metallic steely blue; the former without a

vestige of a tubercle, clothed with pale whitish pile, and cinereous pollinose on the sides. *Front* metallic blue at the sides, bronze-black in the middle, clothed with blackish pile; the apex of the angle of the eyes and a narrow margin on each side cinereous pollinose: antenniferous process not prominent. *Antennæ* yellow, small; third joint somewhat oblong in shape, rounded at the tip, which, with a rather broad upper margin, is brown. *Occiput* cinereous, fringed with silvery hairs. *Thorax* and *scutellum* metallic bronze-brown, the latter steely on the hind margin; *pleuræ* bronze anteriorly, pale metallic bluish white behind the base of the wings; post-alar callosities reddish: thorax sparsely clothed with very short dark pile, the scutellum with longer pale pile. *Abdomen* slender, spatulate, steely on first segment, elsewhere brown; the typical specimen has a narrow transverse faint yellow band, widely divided in the middle, at the base of the fourth segment; genitalia small, concealed: a tuft of whitish hairs on each side of the first segment, and the second and third segments with a fringe of shorter pale hairs on each side; the abdomen elsewhere nearly bare. *Anterior legs* yellow, the third and fourth joints of the tarsi, and the outer side of the femora towards the base, brownish; *second and third pairs of legs* brown, the bases and tips of the femora, the basal third of the posterior tibiæ, the whole of the middle tibiæ, the first two joints of the middle tarsi, the tip of the first and the whole of the second joint of the posterior tarsi, pale yellow: the middle femora with a fringe of rather long pale hairs behind; the posterior femora with a similar but shorter fringe of hair on the outer and inner side. Third longitudinal vein of the wing straight.

Brazil, region of the Amazon (*Bates*): two specimens, both males.

This species is not closely allied to any other known to me; in the markings of the wings it resembles *B. bigoti*, which, however, distinguishes itself at once by the reddish colour of the basal half of the abdomen, as also by the rudimentary condition of its alulæ.

BACCHA PUMILA, sp. n. (Plate V. fig. 12, ♂.)

♂ ♀. Length $6\frac{1}{2}$ mm.

Yellow, shining: centre of dorsum of the thorax shining black, with three cinereous pollinose stripes; abdomen contracted, but yet stout, at the base, then spatulate; with dark brown cross-bands and lineate markings. Legs yellow; posterior femora in the ♂ with the basal third and a band near the tip, posterior tibiæ with a fainter band near the base, brown; these markings are much fainter in the ♀, and in another ♂ the extreme base of the posterior femora is yellow. Wings hyaline; subcostal cell brown: alulæ rudimentary.

Face and cheeks pale opalescent yellow, a narrow shimmering white border next the eyes, when the face is viewed from above; facial tubercle relatively large, at least in the ♂, rounded; in the ♂, frontal triangle and antenniferous projection pale shining yellow with a black dot above the base of the antennæ; vertical

triangle long, narrow, cinereous pollinose. *Front* in the ♀, except the posterior third, which is cinereous pollinose, pale shining yellow, with a blackish-brown dot in the centre line above the base of the antennæ, from which a narrow brown median stripe runs back to the pollinose portion: ocelli remote from the vertex in both sexes. *Antennæ* yellow, third joint rounded at the tip; arista black. Occiput cinereous pollinose. The median cinereous pollinose stripe on the thorax is much narrower, and also somewhat longer, than the lateral ones, but all the stripes terminate at a considerable distance from the scutellum: front portion of the pleuræ metallic yellow; pectus, posterior portion of the pleuræ, and metanotum steely black. *Scutellum* yellow; a narrow stripe along the anterior margin, tapering towards the sides, which it does not quite reach, black. First segment of the *abdomen* with a dark brown posterior border, the lateral protuberances with a tuft of yellow pile; second segment with the anterior and posterior thirds (in the typical ♂ rather more than the anterior third) dark brown, so that the yellow ground-colour is restricted to a band across the middle; this may appear to be narrowly divided in the median line; third and fourth segments with the hind margin, the median third of which is expanded (considerably so in the typical ♂), a quadrate area occupying each posterior angle, a somewhat clavate mark projecting inwards and forwards from these, and a median narrow stripe dark brown; in the typical ♀ the median stripe does not quite reach the anterior margin of the segment, while the "clavate" markings are narrower and less clavate than in the ♂: in a second ♂ in the collection the median stripe is much broader, and also does not quite reach the anterior margin; on the fifth segment the markings are precisely similar, except that the brown posterior margin and the quadrate areas in the posterior angles are almost obsolete, and that (in the typical specimens at least) the median stripe reaches the anterior margin of the segment in both sexes: sixth segment yellow. Third longitudinal vein of the wings somewhat sinuate, convex forwards above the distal half of the first posterior cell; terminal portion of fourth vein bounding the first posterior cell only slightly oblique; posterior cross-vein straight.

Brazil, region of the Amazons (*Bates*): three specimens.

This species is distinguished by its size and markings from any other known to me.

Group II.

BACCHA SILACEA, sp. n. (Plate V. fig. 13, ♂.)

♂. Length 10 mm.

Thorax dull, clothed with dense pollen of pale sienna colour, with narrow leaden stripes; a somewhat sharply defined median pyriform area on the pectus greenish bronze; *abdomen* flattened, but little contracted basally, rufous ochraceous, with orange-ochraceous stripes; front with an obtuse antenniferous projection, marked with a round black spot: *alulae* of full size.

Facial tubercle and oral margin pale orange, the remainder of the *face* and *cheeks* pale yellow, opalescent. *Front* clothed with short dark pile, tawny pollinose, anterior face of antenniferous projection shining; a smaller and fainter black spot in the median line posteriorly, near the apex of the angle formed by the eyes; ocelligerous tubercle black, clothed with short and rather stout black hairs, which curve forwards. *Antennae* orange, short, third joint blunt. Sides of the *thorax* orange, dull, but becoming brassy below; two of the narrow leaden stripes are approximated in the median line in front, and do not reach more than halfway; the other two stripes, which are slightly broader, are lateral in position, one on each side, and extend almost to the hinder margin; besides these there is a faint indication of a fifth stripe, median in position, starting from between the ends of the median stripes, and running to the hind margin of the dorsum; metanotum greenish bronze; post-alar callosities orange, shining: the dorsum of the thorax in front and the anterior portion of the pleuræ are thinly clothed with yellow pile, which becomes more orange near the base of the wings; the dorsum near the transverse suture with short brown pile. *Scutellum* ochraceous, with yellow pile below, and dark brown pile round the margin. First segment of the *abdomen* yellowish ochraceous, tumid and pale yellow at the sides; the remainder of the abdomen rufous ochraceous, with orange-ochraceous markings; on the second segment these markings consist of a narrow and ill-defined transverse band close to the hind margin, and of a crescent-shaped band on the posterior half of the segment, convex anteriorly, widely separated in the middle line, and tapering towards the posterior angles; the third and following segments are marked by five continuous longitudinal stripes, of which that in the median line is very narrow and not sharply defined, while the intermediate ones are much the broadest and most sharply defined; the stripes formed by the ground-colour on each side of the median line are slightly broader than the intermediate orange-ochraceous stripes, while those between the latter and the lateral stripes are much broader than any of the light-coloured stripes; on the fifth segment the stripes converge posteriorly. *Genitalia* small, concealed. *Legs* yellow, a band on the distal half of the posterior femora, not reaching to the tip, and the distal half of the posterior tibiae pale brown. *Wings* uniformly suffused with pale sienna colour; the auxiliary and first longitudinal veins, and the bases of the following veins as far as the fifth, pale orange: third longitudinal vein rather abruptly convex forwards above the distal half of the first posterior cell.

Brazil, region of the Amazon (*Bates*): one specimen.

This species is apparently closely allied to *Baccha notata*, Lw. (Dipt. Amer. Septent., Cent. vii. 65), from Cuba, and belongs to the group of which *Baccha livida*, Schin. (Reise 'Novara,' 343), *Baccha (Syrphus) flavipennis*, Wied. (Auss. zw. Ins. ii. 123), and *Baccha lineata*, Macq. (Dipt. Exot. i. Suppl. 139. t. 20. fig. 5), are also members.

Group III.

BACCHA CULTRATA, sp. n. (Plate V. figs. 8, 9, ♂ ♀.)

♀. Length $12\frac{1}{2}$ mm.; width of second abdominal segment $2\frac{1}{2}$ mm., of fourth abdominal segment 3 mm., across the posterior margin in each case.

Head and thorax yellow, central portion of dorsum of thorax dark greenish bronze, with three cinereous pollinose stripes; abdomen very broad and flat, not contracted basally, but expanding regularly to beyond the middle of the fourth segment, chestnut coloured, with ochraceous bands and other markings, a posterior band on the second to the fourth segments shining burnt-sienna coloured; first and second pairs of legs wholly ochraceous; posterior pair ochraceous rufous, with an incomplete and ill-defined brownish band near the tips of the femora, the tibiae, except the base and tips, dark brown, and the tarsi whitish yellow. Wings large, broad, strongly suffused with ochraceous, darkest along the fore-border above and immediately below the second longitudinal vein, and in the distal third of the submarginal cell; there is also a less dark area on each side of the sixth longitudinal vein; second longitudinal vein considerably convex forwards in the central portion of its course; third longitudinal vein nearly straight, terminal portion of fourth vein closing first posterior cell deeply sinuate, but not very oblique: alulae about half the full size, with a straight posterior edge: knobs of halteres ferruginous.

Face and cheeks shining opalescent yellow; facial tubercle low, ochreous. Front orange-ochraceous, dull, the posterior fourth dark olivaceous; antenniferous tubercle shining yellow on the sides, with a large quadrate shining black spot above the base of the antennae; from the ocelli, which are remote from the vertex, a narrow dark median stripe runs forwards, but becomes faint and nearly obliterated before reaching the supra-antennal spot. Antennae missing; occiput yellowish pollinose, with a fringe of pale yellow hairs. Of the three cinereous pollinose stripes on the thorax, one, which is very narrow, is in the median line, and is separated by two narrow dark stripes from the other two cinereous stripes, which are broader; outside these is a very broad dark bronze stripe on each side, which is divided by the transverse suture; the cinereous stripes are abbreviated at about two-thirds the length of the thorax, leaving the bronze colour to extend to the scutellum; sides of the dorsum and pleurae metallic yellow, the posterior portion of the pleurae more steely; metanotum shining bronze. Scutellum raw-sienna coloured, yellower along the anterior margin, moderately shining. Abdomen: first segment yellow on the sides, orange-ochraceous in the centre, with the central portion of the posterior border dark brown; second segment reddish ochraceous at the base, and with a narrow and considerably curved (posteriorly concave) ochraceous band across the middle; this may appear to be narrowly interrupted in the median line; third segment narrowly ochreous at the extreme base, and with a broad, slightly curved (posteriorly concave) ochraceous transverse band,

tapering somewhat towards the sides and narrowly divided in the median line; in the median line the band is about three times as far from the posterior margin of the segment as from the anterior, and it may appear not quite to reach the lateral margins; on the fourth segment the ochraceous markings take the shape of a somewhat lunate mark projecting backwards from the anterior margin on each side of the median line, with a narrow piece projecting obliquely from the base of each mark towards the lateral margin on each side; the inner margin of the "lunate" marks is convex, they extend about two-thirds the length of the segment, and are obliquely truncated anteriorly and posteriorly; the extreme base of the segment is narrowly ochraceous from each "lunate" mark to the side; on the fifth segment the ochraceous marks are represented by a stripe on each side of the median line, starting from the anterior and reaching to the posterior margin, with the inner side of each slanting outwards posteriorly, so that the ground-colour between them constitutes a small triangle, which is continued as a narrow median stripe to the anterior margin; the ends of the two ochraceous stripes are connected by a narrow and indistinctly defined band near the posterior margin; in addition to this there is a small ochraceous triangle projecting from the anterior margin of the segment on each side, between the stripe and lateral margin, with its base connected with the stripe and its apex situated at rather more than one-third of the length of the segment; sixth segment with the median two-fourths of its hinder margin occupied by a yellowish band, each end of which is connected with the anterior margin by a short ochraceous stripe. The lateral prominences of the first abdominal segment bear a tuft of ochraceous pile, mingled with blackish pile posteriorly; the remaining segments are sparsely clothed with very short black pile, which becomes somewhat longer on the sides, especially in the case of the fifth segment.

Brazil, Santarem (*Bates*): one specimen.

There are also two males in the collection which I consider to belong to this species; but since they are in poor condition, I have described the ♀ at greater length.

♂. Length $12\frac{1}{2}$ mm.

Resembling the ♀, but differing as follows:—the most striking difference is presented by the coloration of the wings; these are uniformly suffused with pale brown, which, though stronger in the costal and darkest in the subcostal cell, shows only the very faintest trace of concentration at the tip of the submarginal cell (none at all in the second specimen in the collection, in which the tint of the wings is considerably lighter); the wings, therefore, do not present a blotched appearance; the wings are also considerably narrower, the second longitudinal vein is straighter, and the terminal portion of the fourth vein, closing the first posterior cell, much more oblique: the dark stripe on the thorax, on each side of the narrow median cinereous one, is broader: the abdomen is browner, the markings yellower; second segment yellower at the

base, and with the band across the middle about twice as broad; third segment with a distinct narrow ochreous band across the base, widest in the middle and notched in the median line, tapering towards the sides (in the second specimen in the collection this band is merely represented by a faint line, but the specimen may have been captured very soon after it emerged), and with the main transverse band much broader; fourth segment with the "lunate" marks represented by two stripes running straight from the front to the hind margin; each of these sends off a narrow oblique mark from near its base towards the lateral margin, as do the corresponding marks in the ♀, and from its extreme base a narrow line runs to the lateral margin, along the base of the segment; fifth segment with a straight stripe running from the front to the hind margin on each side of the median line, and connected together posteriorly, but apparently with no trace of the small basal triangles: the *legs* are *paler yellow*, but the brown markings on the posterior pair and the posterior tarsi just as in the ♀. The *antennae* are orange, short, the third joint rounded, and the second and third joints and the tip of the first narrowly dark brown above; the *arista* dark brown; the shining black spot above the antennae narrower than in the ♀; the front is clothed with short dark pile. The *alulae* and the *shape of the abdomen* as in the ♀; *genitalia* ochraceous.

Brazil, Villa Nova and Santarem (Bates): two specimens.

BACCHIA FLAVENS, sp. n. (Plate V. fig. 10, ♀.)

♀. Length $12\frac{1}{2}$ mm.

Yellow, nearly bare; dorsum of the thorax, except the sides, shining orange-rufous, with two abbreviated pale yellow stripes, which are clothed with shimmering whitish pollen: abdomen deep chrome-yellow, with narrow shining brown transverse bands and lineate markings; broad, flat, not contracted basally, but expanding regularly to the end of the fourth segment. Legs wholly yellow. Wings with an ochraceous tinge, strongest towards the anterior margin: alulae rudimentary.

Face and cheeks pale yellow, shining, except the facial tubercle, which is dull. Front somewhat deeper yellow, dull, the posterior fifth dark olivaceous; the slight antenniferous projection shining, pale yellow on the sides; a conspicuous shining black dot above the base of the antennae; above this is a small brown blotch, from which a faint rufous median stripe runs back to the vertex. First two joints of the antennae ochreous; the third is missing. The yellowish shimmering pollinose stripes of the dorsum of the thorax only extend about two-thirds of its length, and divide the orange-rufous area into a median and two lateral stripes, which are all of equal breadth and coalesce posteriorly; the sides of the dorsum, pleurae, pectus, and metanotum metallic yellow: scutellum dull, tawny ochraceous, orange-ochraceous at the base. Abdomen: first segment pale yellow, shining, with a narrow faint brownish band occupying the median two-fourths of the hind border; second segment with a straight brown transverse band occupying about the

posterior fifth; third segment with a similar brown transverse posterior band, which, however, is concave anteriorly for about a fourth of the width of the segment on each side of the median line; in the median line it is produced into a small angle, from which a faint brown median stripe extends forwards to within about one-seventh of the length of the segment from the anterior margin; fourth segment with the extreme hind margin and three triangles brown; two of the triangles are lateral in position, one in each posterior angle, and extend forwards and inwards to about the middle of the segment; the third is median, and narrower than the other two, and is prolonged as a median stripe to the anterior margin, before reaching which, however, it becomes faint; the markings on the fifth segment are similar to those on the fourth, but narrower, and the lateral triangles are so prolonged that they are only narrowly separated from the anterior margin; the median triangle, too, is here represented by a stripe, which, while expanding slightly posteriorly, is only about half the width of the median stripe on the preceding segment, and (in the typical specimen at least) is separated by about one-eighth of the length of the segment from the anterior margin; on the short sixth segment the lateral triangles (here almost reduced to stripes) reach the anterior margin without becoming indistinct, while the median triangle is represented by a small, but sharply defined, triangular spot, with its base in the centre of the anterior margin and its apex in the middle of the segment. The third longitudinal vein of the wings is nearly straight, and only slightly concave posteriorly; distal half of subcostal cell dark ochraceous; knobs of halteres ferruginous.

Brazil, region of the Amazons (*Bates*): one specimen.

In the markings of the abdomen this species somewhat resembles *B. gilva*, but is at once distinguished by the colour of the dorsum of the thorax, as well as by the deeper colour of the scutellum and abdomen, and by its larger size.

BACCHA GILVA, sp. n. (Plate V. fig. 7, ♂.)

♂. Length $9\frac{1}{2}$ mm.

Pale yellow: thorax metallic brown in centre of dorsum, abdomen with brown transverse bands and other markings; the abdomen is flat, broad, not contracted at the base, but expanding regularly to the hind margin of the fourth segment. Wings with a yellowish tinge, especially towards the base; veins yellow, the auxiliary and first longitudinal veins orange: alulae rudimentary.

Face and cheeks pale yellow, shining, the low facial tubercle dull, the face receding. Front yellow, with a black dot on the anterior face of the antenniferous projection; the front clothed with brown pile, the upper part of the face below the antennae also with darkish pile; vertical triangle elongated, though not very narrow, cinereous pollinose, the ocelli remote from the vertex; occiput fringed at the sides with golden yellow hairs. Antennae orange, third joint rounded: arista brown, yellow at the base. Thorax

metallic yellow on the sides of the dorsum and on the pleuræ, metanotum and a faint patch on each side above the middle coxæ brown. *Scutellum* dull yellow. *Abdomen*: second segment with a narrow, posteriorly concave, pale brown transverse band near the hind margin; third segment with a brown transverse band which is very narrow and close to the hind margin in the middle, but at the sides is broader, reaches to the hind margin, and has a ragged anterior edge; fourth segment with the extreme hind margin, a small median posterior triangle prolonged into a faint median line which almost reaches to the anterior margin of the segment, and a quadrate area in each posterior angle, occupying about one-third of the length of the segment, brown; the inner anterior angles of the quadrate areas are considerably prolonged, so that they run like a sharp thorn into the yellow portion of the segment on each side; fifth segment nearly wholly yellow, a narrow median stripe starting from the anterior margin of the segment, but becoming obsolete about halfway, and an ill-defined patch in each posterior angle, from which a faint and almost obsolete streak runs forwards and slightly inwards, faintly brown; genitalia brown at the tip: the abdomen is clothed with very short and sparse appressed black pile; the thorax and scutellum almost bare. *Legs* uniformly pale yellow; first joint of posterior tarsi slightly swollen. *Wings* rather narrow; third longitudinal vein concave posteriorly; subcostal cell orange.

Brazil, region of the Amazons (*Bates*): one specimen.

BACCHA CROCATÁ, sp. n. (Plate V. fig. 5, ♀.)

♀. Length $7\frac{1}{2}$ to $9\frac{1}{2}$ mm.

Saffron-yellow; *abdomen* with brown bands and indentations, centre of dorsum of thorax shining brown, with yellowish cinereous pollinose stripes; wings suffused with saffron-yellow, somewhat darker on the basal half along the costal side; *alulae* rudimentary; legs wholly yellow; the posterior femora of the smallest specimen have a narrow incomplete faint brownish band towards the tip.

Face and *cheeks* pale opalescent yellow, clothed with short pale pile; face tuberculate, receding. *Front* saffron-yellow, pollinose, rather more than the posterior third cinereous-bronze pollinose, from which a sharply defined brown median stripe runs to the base of the antenniferous projection; in a smaller specimen ($7\frac{1}{2}$ mm. in length) this stripe is broader and runs right over the antenniferous projection to the base of the antennæ; immediately above the antennæ is a round black dot. *Antennæ* orange, short, third joint rounded, arista brown, yellow at the base; ocelli remote from the vertex. Occiput fringed with golden-yellow hairs. The pollinose stripes of the dorsum of the thorax consist of a very fine median one, and a much broader stripe on either side of this; all three are abbreviated before reaching the scutellum, but the median one is somewhat the longer; the brown stripe outside each lateral pollinose one is the broadest and darkest of all, and is divided by the transverse suture: the sides of the dorsum and

the pleuræ are shining metallic; above the middle coxæ a faint brownish opalescent stripe extends upwards and backwards to the metanotum, which is dark metallic. *Scutellum* wholly saffron-yellow. *Abdomen* flat, broad, not contracted at the base, but expanding regularly to the end of the fourth segment; like the thorax, it is almost bare; first segment pale yellow, with a tuft of yellow hairs on each side; second segment with rather more than the basal third brown, narrowly yellowish at the extreme base, and with a shining reddish-brown band on the hind margin, in front of which is a narrow dark brown transverse band, which is slightly concave posteriorly; the yellow area of the segment therefore takes the shape of a fairly broad transverse band; the brown basal area is sometimes fainter, and the segment then appears yellowish at the base also; third segment shining reddish brown on the posterior margin, in front of which is a narrow transverse brown band, which projects on each side into a small angle at about a fifth of the width of the segment from the lateral margin; from the anterior margin a brown spot shaped like a spear-head projects backwards in the median line, and is narrowly connected by an almost obsolete median stripe with the posterior transverse band; from the anterior third of the lateral margin a tongue-shaped brown mark projects inwards on each side, leaving the actual anterior margin of the segment yellow; on the fourth segment the markings are a modified representation of those on the third; there is a narrow shining brown posterior border, which expands into a dull brown quadrate area on each side, from which a greatly prolonged acute angle projects forwards and slightly inwards, extending to within one-fourth of the length of the segment from the anterior margin; the median line is occupied by a fairly broad and sharply defined stripe, which expands at each end, but the tongue-shaped mark which is seen projecting inwards on each side of the preceding segment in front is here much reduced and sometimes almost obsolete; the width of the yellow marks on this segment varies in different specimens, and in the typical individual those on either side of the median stripe extend to the hind margin; the markings on the fifth segment are arrived at by a still further modification of the foregoing; in this case the brown marks take the form of a median stripe, expanded towards each end, and of a curving piece projecting forwards from each posterior angle and nearly reaching to the anterior margin; the lateral margins of the segment are also narrowly brown; the sixth segment, which is very small, is brownish on each side, and has a narrow median stripe extending almost to the hind margin; the brown marks are, however, not visible in the typical specimen. Third longitudinal vein of the wings straight, curving downwards at the tip.

Brazil, region of the Amazons (*Bates*): two specimens.

In addition to the above, there is also in the collection a small male, which I regard as belonging to this species; it is, however, too much damaged to describe, and I have therefore made a female

the type of the species : the specimen in question is about 8 mm. in length, and resembles the female in general appearance ; the *face* and *cheeks* are, however, saffron-yellow, instead of pale yellow ; the frontal triangle has a brownish median stripe extending from the antenniferous projection nearly to the angle of the eyes : the *abdomen* is narrower, and somewhat contracted and cylindrical at the base ; the first segment is brownish in the centre ; the third segment has a fairly broad posterior brown band, with the lateral angles only faintly indicated ; the median brown mark projecting from the anterior margin is oval in shape, and does not extend further than one-fifth the length of the segment ; the *wings* are somewhat browner, and less yellow, but this is also the case in the smaller of the two females mentioned above ; the posterior femora have a narrow incomplete brownish band beyond the middle.

This specimen is likewise from the region of the Amazons (*Bates*).

BACCHA CROCEA, sp. n. (Plate V. fig. 6, ♂.)

♂. Length $8\frac{1}{2}$ to 9 mm.

Closely allied to B. crocata ; saffron-yellow ; thorax metallic, very shining, brown in the centre of the dorsum, with two narrow abbreviated yellow stripes ; abdomen narrow at the base, but expanding regularly to the end of the fourth segment, with brown bands and indentations, but the third segment with no brown at the basal angles ; wings suffused with pale brown, alulae rudimentary ; legs yellow, posterior femora with a narrow but distinct brownish band beyond the middle, darkest on the outer side.

The chief differences between this species and crocata appear in the front, thorax, and third segment of the abdomen ; the front is shining yellow, instead of dull orange (the black dot above the base of the antennae is present) ; the thorax is very shining, and the narrow yellow stripes which are situated on either side of the median line are due to the ground-colour, and not to pollen ; the metanotum is brownish, but there is no dark stripe extending backwards to it from above the middle coxae ; the first abdominal segment is brown in the centre, as is the case in the specimen which I have considered as a male of crocata, but the absence of brown from the basal angles of the third segment gives that segment quite a different appearance ; there is likewise no brown in the basal angles of the fourth segment, but this, so far as its damaged condition permits me to judge, is likewise the case in the specimen I consider to be a male of crocata ; in other respects the brown markings of the abdomen are almost precisely similar to those seen in crocata ; the median brown stripe on the fourth segment stops short of the anterior margin in the typical specimen, but reaches it in the other example in the collection ; the wings are less infuscated than in the supposed male of crocata, and are somewhat narrower and longer ; the third longitudinal vein is straighter, and the terminal portion of the fourth vein, closing the first posterior cell, less sinuate.

Brazil, region of the Amazons (*Bates*) : two specimens.

BACCHA FERVIDA, sp. n. (Plate V. fig. 11, ♂.)

♂. Length 10 mm.

General colour orange; abdomen deep dull orange, with metallic brown posterior borders to the segments, flat, not contracted basally, but expanding regularly to the end of the fourth segment: wings suffused with brown, slightly paler towards the tips; adults of full size.

Face and cheeks pale yellow, thinly clothed with pale yellow pile; the face receding, with a very small tubercle. Front orange pollinose, with a brown median stripe from the angle of the eyes to the upper margin of the very slight antenniferous projection; the latter pale orange in front, shining, with a black dot above the antennae; the front clothed with brown pile. Antennae orange, short, third joint rounded at the tip, with the upper margin brown; arista brown, yellowish at the base; vertical triangle bronze, black at the apex, long, narrow; ocelli remote from the vertex. Dorsum of thorax metallic orange, somewhat iridescent, not pollinose, with three narrow faint brown stripes (one median and one on either side of it), which do not reach more than halfway: pleurae metallic yellow; scutellum dull saffron-yellow. Abdomen: first segment brownish orange; second segment with a metallic transverse band on the anterior as well as the posterior fourth; this segment is somewhat shining, especially in the median line; on the third segment the metallic brown transverse band on the posterior fourth expands somewhat towards the sides, and there is a semi-obsolete faint brown median stripe, extending from the anterior margin to the posterior border; on the fourth segment the posterior band is only about half the width of that on the third, but it expands into a median triangle, which is connected by a faint brown stripe with the anterior margin, and also into a quadrate area on each side, which occupies rather more than half the length of the segment; the median stripe is somewhat clavate at its anterior extremity, and this is also the case with the similar stripe on the third segment; the fifth segment is wholly shining, and the brown portion is about equal to the orange in area; the posterior border is, however, much narrower, while the median stripe is broader and more sharply defined than on the previous segments, and that which corresponds to the brown lateral quadrate areas on the fourth segment is here represented by an ovate mark on each side, extending nearly to the anterior margin and situated nearer the middle line, so that the lateral margin of the segment as far as the posterior border is orange: the orange portion of the fifth segment on each side of the median stripe is therefore deeply indented by a brown notch; genitalia brown at the tip: with the exception of a tuft of pale yellow hairs on each side of the first segment, the pile on the abdomen is black, appressed, and very short and sparse, though it is somewhat longer on the fifth segment. Legs yellow; posterior pair deeper orange, but without bands. Third longitudinal vein